



SEQUENCE LISTING

<110> McGill University
Rouleau, Guy A.
Lafrenière, Ronald G.
Cossette, Patrick
Ragsdale, David

<120> LOCI FOR IDIOPATHIC GENERALIZED EPILEPSY, MUTATIONS
THEREOF AND METHOD USING SAME TO ASSESS, DIAGNOSE,
PROGNOSE OR OR TREAT EPILEPSY

<130> GOUD:023

<150> 09/167,623

<151> 2000-11-24

<140> PCT/CA00/01404

<141> 2000-11-24

<140? 60/167,623

<141> 1999-11-26

<160> 408

<170> PatentIn Ver. 2.1

<210> 1

<211> 8378

<212> DNA

<213> Homo sapiens

<400> 1

```
tactgcagag gtctctggtg catgtgtgta tgtgtgctgt tgtgtgtgtt tgtgtgtctg 60
tgtgttctgc cccagtgaga ctgcagccct tgtaaatact ttgacacctt ttgcaagaag 120
gaatctgaac aattgcaact gaaggcacat tgttatcatc tcgtcttttg gtgatgctgt 180
tcctcactgc agatggataa ttttcctttt aatcaggaat ttcatatgca gaataaatgg 240
taattaaat gtgcaggatg acaagatgga gcaaacagtg cttgtaccac caggacctga 300
cagcttcaac ttcttcacca gagaatctct tgcggctatt gaaagacgca ttgcagaaga 360
aaaggcaaag aatcccaaac cagacaaaaa agatgacgac gaaaatggcc caaagccaaa 420
tagtgacttg gaagctggaa agaaccttcc atttatttat ggagacattc ctccagagat 480
ggtgtcagag cccctggagg acctggaccc ctactatata aataagaaaa cttttatagt 540
attgaataaa gggaaggcca tcttcgggtt cagtgccacc tctgccctgt acattttaac 600
tcccttcaat cctcttagga aaatagctat taagattttg gtacattcat tattcagcat 660
gctaattatg tgcactattt tgacaaactg tgtgtttatg acaatgagta accctcctga 720
ttggacaaag aatgtagaat acaccttcac aggaatatat acttttgaat cacttataaa 780
aattattgca aggggattct gtttagaaga ttttactttc cttcgggatc catggaactg 840
gctcgatttc actgtcatta catttgcgta cgtcacagag tttgtggacc tgggcaatgt 900
ctcggcattg agaacattca gagttctccg agcattgaag acgatttcag tcattccagg 960
cctgaaaacc attgtgggag cctgatcca gtctgtgaag aagctctcag atgtaatgat 1020
cctgactgtg ttctgtctga gcgtatttgc tctaattggg ctgcagctgt tcatgggcaa 1080
cctgaggaat aaatgtatac aatggcctcc caccaatgct tccttgaggg aacatagtat 1140
agaaaagaat ataactgtga attataatgg tacacttata aatgaaactg tctttgagtt 1200
tgactggaag tcatatatcc aagattcaag atatcattat ttcttgaggg gttttttaga 1260
tgactacta tgtggaaata gctctgatgc aggccaatgt ccagagggat atatgtgtgt 1320
gaaagctggt agaaatccca attatggcta cacaagcttt gataccttca gttgggcttt 1380
tttgccttg tttcgactaa tgactcagga cttctgggaa aatctttatc aactgacatt 1440
```

acgtgctgct	gggaaaacgt	acatgatatt	ttttgtattg	gtcattttct	tgggctcatt	1500
ctacctaata	aatttgatcc	tggtgtggt	ggccatggcc	tacgaggaac	agaatcaggc	1560
caccttgga	gaagcagaac	agaaagaggc	cgaatttcag	cagatgattg	aacagcttaa	1620
aaagcaacag	gaggcagctc	agcaggcagc	aacggcaact	gcctcagaac	attccagaga	1680
gccagtgca	gcaggcaggc	tctcagacag	ctcatctgaa	gcctctaagt	tgagttccaa	1740
gagtgtctaa	gaaagaagaa	atcggaggaa	gaaaagaaaa	cagaaagagc	agtctggttg	1800
ggaagagaaa	gatgaggatg	aattccaaaa	atctgaatct	gaggacagca	tcaggaggaa	1860
aggttttcgc	ttctccattg	aagggaaccg	attgacatat	gaaaagagg	actcctcccc	1920
acaccagtct	ttgttgagca	tccgtggctc	cctattttca	ccaaggcgaa	atagcagaac	1980
aagccttttc	agcttttagag	ggcgagcaaa	ggatgtggga	tctgagaacg	acttcgcaga	2040
tgatgagcac	agcacctttg	aggataacga	gagccgtaga	gattccttgt	ttgtgccccg	2100
acgacacgga	gagagacgca	acagcaacct	gagtcagacc	agtaggtcat	cccggatgct	2160
ggcagtggtt	ccagcgaatg	ggaagatgca	cagcactgtg	gattgcaatg	gtgtgggtttc	2220
cttggttggt	ggaccttcag	ttcctacatc	gcctgttggg	cagcttctgc	cagaggtgat	2280
aatagataag	ccagctactg	atgacaatgg	aacaaccact	gaaactgaaa	tgagaaagag	2340
aaggtcaagt	tctttccacg	tttccatgga	ctttctagaa	gatccttccc	aaaggcaacg	2400
agcaatgagt	atagccagca	ttctaacaaa	tacagtagaa	gaacttgaag	aatccaggca	2460
gaaatgccc	ccctgttggt	ataaattttc	caacatattc	ttaatctggg	actgttctcc	2520
atattggtta	aaagtgaac	atgttgtcaa	cctgggtgtg	atggacccat	ttgttgacct	2580
ggccatcacc	atctgtattg	tcttaaatac	tcttttcatg	gccatggagc	actatccaat	2640
gacggaccat	ttcaataatg	tgcttacagt	aggaaacttg	gttttctactg	ggatctttac	2700
agcagaaatg	tttctgaaaa	ttattgccat	ggatccttac	tattatttcc	aagaaggctg	2760
gaatatcttt	gacgggtttta	ttgtgacgct	tagcctggta	gaacttggac	tcgccaatgt	2820
ggaaggatta	tctgtttctcc	gttcatttctg	attgctgcga	gttttcaagt	tggcataatc	2880
ttggccaacg	ttaaatatgc	taataaagat	catcggaat	tccgtggggg	ctctgggaaa	2940
tttaaccctc	gtcttgacca	tcacgtctct	catttttgcc	gtggtcggca	tcgagctctt	3000
tggtaaaagc	tacaaagatt	gtgtctgcaa	gatcgccagt	gattgtcaac	tcccacgctg	3060
gcacatgaat	gacttcttcc	actccttcc	gattgtgttc	cgcggtgctg	gtggggagtg	3120
gatagagacc	atgtgggact	gtatggaggt	tgctggtcaa	gccatgtgcc	ttactgtctt	3180
catgatggtc	atggtgattg	gaaacctagt	ggctctgaat	ctcttctctg	ccttgcttct	3240
gagctcattt	agtgcagaca	accttgagc	cactgatgat	gataatgaaa	tgaataatct	3300
ccaaattgct	gtggatagga	tgacaaaagg	agtagcttat	gtgaaaagaa	aaatatatga	3360
atttattcaa	cagtccttca	ttaggaaaaca	aaagatttta	gatgaaatta	aaccacttga	3420
tgatctaaac	aacaagaaag	acagttgtat	gtccaatcat	acagcagaaa	ttgggaaaga	3480
tcttgactat	cttaaagatg	taaatggaac	tacaagtgg	ataggaactg	gcagcagtg	3540
tgaaaaatac	attattgatg	aaagtgatta	catgtcattc	ataaacaacc	ccagtcctac	3600
tgtgactgta	ccaattgctg	taggagaatc	tgactttgaa	aattttaaaca	cggaagactt	3660
tagtagtgaa	tcggatctgg	aagaaagcaa	agagaaactg	aatgaaagca	gtagctcatc	3720
agaaggtagc	actgtggaca	tcggcgacc	tgtagaagaa	cagcccgtag	tggaacctga	3780
agaaactctt	gaaccagaag	cttgtttcac	tgaaggctgt	gtacaaagat	tcaagtgttg	3840
tcaaatcaat	gtggaagaag	gcagaggaaa	acaatggtgg	aacctgagaa	ggacgtgttt	3900
ccgaatagtt	gaacataact	ggtttgagac	cttcattggt	ttcatgattc	tccttagtag	3960
tggtgctcgg	catttgaaaga	tatatatatt	gatcagcgaa	agacgattaa	gacgatgttg	4020
gaatatgctg	acaaggtttt	cacttacatt	ttcattctgg	aaatgcttct	aaaatgggtg	4080
gcatatggct	atcaaacata	tttcaccaat	gcctgggtgt	ggctggactt	cttaattggt	4140
gatgtttcat	tggtcagttt	aacagcaaat	gccttggtgt	actcagaact	tggaagccatc	4200
aaatctctca	ggacactaag	agctctgaga	cctctaagag	ccttatctcg	atttgaagg	4260
atgagggtgg	ttgtgaatgc	ccttttagga	gcaattccat	ccatcatgaa	tgtgcttctg	4320
gtttgtctta	tattctggct	aattttcagc	atcatggcg	taaaattgtt	tgctggcaaa	4380
ttctaccact	gtattaacac	cacaactgg	gacaggtttg	acatcgaaga	cgtgaataat	4440
catactgatt	gcctaaaact	aatagaaaaga	aatgagactg	ctcgatggaa	aaatgtgaaa	4500
gtaaaactttg	ataatgtagg	atgtgggtat	ctctctttgc	ttcaagttgc	cacattcaaa	4560
ggatggatgg	atataatgta	tcgagcagtt	gattccagaa	atgtggaact	ccagcctaag	4620
tatgaagaaa	gtctgtacat	gtatctttac	ttgtttat	tcatcatctt	tggtccttc	4680
ttcaccttga	acctgtttat	tggtgtcatc	atagataatt	tcaaccagca	gaaaaagaag	4740
tttgagggtc	aagacatctt	tatgacagaa	gaacagaaga	aatactataa	tgcaatgaaa	4800
aaattaggat	cgaaaaaacc	gcaaaagcct	atacctcgac	caggaaacaa	atttcaagga	4860

atggtctttg	acttcgtaac	cagacaagtt	tttgacataa	gcacatgat	tctcatctgt	4920
cttaacatgg	tcacaatgat	ggtggaaaca	gatgaccaga	gtgaatatgt	gactaccatt	4980
ttgtcacgca	tcaatctggt	gttcattgtg	ctatttactg	gagagtgtgt	actgaaactc	5040
atctctctac	gccattatta	ttttaccatt	ggatggaata	tttttgattt	tgtggttgtc	5100
attctctcca	ttgtaggtat	gtttcttgcc	gagctgatag	aaaagtattt	cgtgtcccct	5160
accctgttcc	gagtgatccg	tcttgctagg	attggccgaa	tcctacgtct	gatcaaagga	5220
gcaaagggga	tccgcacgct	gctctttgct	ttgatgatgt	cccttcctgc	gttggttaac	5280
atcggcctcc	tactcttcct	agtcatgttc	atctacgcca	tctttgggat	gtccaacttt	5340
gcctatgtta	agaggggaagt	tgggatcgat	gacatgttca	actttgagac	ctttggcaac	5400
agcatgatct	gcctattcca	aattacaacc	tctgctggct	gggatggatt	gctagcacc	5460
attctcaaca	gtaagccacc	cgactgtgac	cctaataaag	ttaaccctgg	aagctcagtt	5520
aaggagact	gtgggaaccc	atctgttgga	attttctttt	ttgtcagtta	catcatcata	5580
tccttctctg	ttgtggtgaa	catgtacatc	gcggtcatcc	tggagaactt	cagtgttgct	5640
actgaagaaa	gtgcagagcc	tctgagttag	gatgactttg	agatgttcta	tgaggtttgg	5700
gagaagtgtg	atcccgatgc	aactcagttc	atggaatttg	aaaaattatc	tcagtttgca	5760
gctgcgcttg	aaccgcctct	caatctgcca	caaccaaaaca	aactccagct	cattgccaatg	5820
gatttgccca	tggtgagtgg	tgaccggatc	cactgtcttg	atatcttatt	tgcttttaca	5880
aagcgggttc	taggagagag	tggagagatg	gatgctctac	gaatacagat	ggaagagcga	5940
ttcatggctt	ccaatccttc	caaggtctcc	tatcagccaa	tcactactac	tttaaaacga	6000
aaacaagagg	aagtatctgc	tgtcattatt	cagcgtgctt	acagacgcca	ccttttaaaag	6060
cgaactgtaa	aacaagcttc	ctttacgtac	aataaaaaaca	aaatcaaagg	tggggctaata	6120
cttcttataa	agaagacat	gataattgac	agaataaatg	aaaactctat	tacagaaaaa	6180
actgatctga	ccatgtccac	tgcagcttgt	ccaccttcct	atgaccgggt	gacaaagcca	6240
attgtggaag	aacatgagca	agaaggcaaa	gatgaaaaag	ccaaagggaa	ataaatgaaa	6300
ataaataaaa	ataattgggt	gacaaattgt	ttacagcctg	tgaaggtgat	gtatttttat	6360
caacaggact	ccttttaggag	gtcaatgcca	aactgactgt	ttttacacaa	atctccttaa	6420
ggtcagtgcc	tacaataaga	cagtgaaccc	ttgtcagcaa	actgtgactc	tgtgtaaagg	6480
ggagatgacc	ttgacaggag	gttactgttc	tcactaccag	ctgacactgc	tgaagataag	6540
atgcacaatg	gctagtccga	ctgtagggac	cagtttcaag	gggtgcaaac	ctgtgatttt	6600
ggggttgttt	aacatgaaac	acttttagtgt	agtaattgta	tccactgttt	gcattttcaac	6660
tgccacattt	gtcacatttt	tatggaatct	gttagtggat	tcactctttt	gttaatccat	6720
gtgtttatta	tatgtgacta	tttttgtaaa	cgaagtttct	gttgagaaat	aggctaagga	6780
cctctataac	aggtaggcca	cctggggggg	atggcaacca	catggccctc	ccagctacac	6840
aaagtcgtgg	tttgcatgag	ggcatgctgc	acttagagat	catgcatgag	aaaaagtcac	6900
aagaaaaaca	aattctttaa	tttcaccata	tttctgggag	gggtaattgg	gtgataagtg	6960
gaggtgcttt	gttgatcttg	ttttgcgaaa	tccagcccct	agaccaagta	gattatttgt	7020
gggtaggcca	gtaaatctta	gcagggtgca	acttcattca	aatgtttgga	gtcataaatg	7080
ttatgtttct	ttttgttgta	ttaaaaaaa	aacctgaata	gtgaatattg	cccctcaccc	7140
tccaccgcca	gaagactgaa	ttgacaaaa	ttactcttta	taaattttctg	ctttttcctg	7200
cactttgttt	agccatcttc	ggctctcagc	aaggttgaca	ctgtatatgt	taatgaaatg	7260
ctattttatta	tgtaaatagt	catttttacc	tgtggtgcac	gtttgagcaa	acaaataatg	7320
acctaagcac	agtattttatt	gcacaaata	tgtaccacaa	gaaatgtaga	gtgcaagctt	7380
tacacaggta	ataaaatgta	ttctgtacca	tttatagata	gtttggatgc	tatcaatgca	7440
tgtttatatt	accatgctgc	tgtatctggt	ttctctcact	gctcagaatc	tcattttatga	7500
gaaaccatat	gtcagtggta	aagtcaagga	aattgttcaa	cagatctcat	ttattttaagt	7560
cattaagcaa	tagtttgag	cactttaaca	gctttttggt	tattttttaca	ttttaagtgg	7620
ataacatatg	gtatatagcc	agactgtaca	gacatgttta	aaaaaacaca	ctgcttaacc	7680
tattaaatat	gtgtttagaa	ttttataagc	aaatataaat	actgtaaaaa	gtcactttat	7740
tttatttttc	agcattatgt	acataaaatat	gaagaggaaa	ttatcttcag	gttgatatca	7800
caatcacttt	tcttactttc	tgtccatagt	actttttcat	gaaagaaatt	tgctaaataa	7860
gacatgaaaa	caagactggg	tagttgtaga	tttctgcttt	ttaaattaca	tttgctaatt	7920
ttagattatt	tcacaatttt	aaggagcaaa	ataggttcac	gattcatatc	caaattatgc	7980
tttgcaattg	gaaaaggggt	taaaattttta	tttatatttc	tggtagtacc	tgcactaact	8040
gaattgaagg	tagtgcttat	gttatttttg	ttcttttttt	ctgacttcgg	tttatgtttt	8100
catttctttg	gagtaatgct	gctctagtgt	ttctaaatag	aatgtgggct	tcataatttt	8160
tttttccaca	aaaacagagt	agtcaactta	tatagtcaat	tacatcagga	cattttgtgt	8220
ttcttacaga	agcaaaccat	aggctcctct	tttctttaa	actacttaga	taaactgtat	8280

tcgtgaactg catgctggaa aatgctacta ttatgctaaa taatgctaac caacatttaa 8340
aatgtgcaaa actaataaag attacatfff ttattttta 8378

<210> 2
<211> 8378
<212> DNA
<213> Homo sapiens

<400> 2
tactgcagag gtctctggtg catgtgtgta tgtgtgctgt tgtgtgtgtt tgtgtgtctg 60
tgtgtttctgc cccagtgaga ctgcagccct tgtaaatact ttgacacctt ttgcaagaag 120
gaatctgaac aattgcaact gaaggcacat tggtatcatc tcgtcttttg gtgatgctgt 180
tcctcactgc agatggataa ttttcctttt aatcaggaat ttcatatgca gaataaatgg 240
taattaaaat gtgcaggatg acaagatgga gcaaacagtg cttgtaccac caggacctga 300
cagcttcaac ttcttcacca gagaatctct tgcggctatt gaaagacgca ttgcagaaga 360
aaaggcaaaag aatcccaaac cagacaaaaa agatgacgac gaaaatggcc caaagccaaa 420
tagtgacttg gaagctggaa agaacccttc atttatttat ggagacattc ctccagagat 480
ggtgtcagag cccctggagg acctggaccc ctactatct aataagaaaa cttttatagt 540
attgaataaa gggaaggcca tcttcgggtt cagtgccacc tctgccctgt acattttaac 600
tcctttcaat cctcttagga aaatagctat taagattttg gtacattcat tattcagcat 660
gctaattatg tgcactatft tgacaaactg tgtgtttatg acaatgagta accctcctga 720
ttggacaaaag aatgtagaat acaccttcac aggaatatat acttttgaat cacttataaa 780
aattattgca aggggattct gtttagaaga ttttactttc cttcgggatc catggaactg 840
gctcgatttc actgtcatta catttgctgt tgtaacagaa tttgtaaacc taggcaattt 900
ttcagctctt cgcactttca gagtcttgag agctttgaaa actatttcgg taattccagg 960
cctgaaaacc attgtgggag cctgatcca gtctgtgaag aagctctcag atgtaatatg 1020
cctgactgtg ttctgtctga gcgtatttgc tctaattggg ctgcagctgt tcatgggcaa 1080
cctgaggaat aaatgtatac aatggcctcc caccaatgct tccttgaggg aacatagtat 1140
agaaaagaat ataactgtga attataatgg tacacttata aatgaaactg tctttgagtt 1200
tgactggaag tcataatttc aagattcaag atatcattat ttcctggagg gttttttaga 1260
tgactacta tgtggaaata gctctgatgc aggccaatgt ccagagggat atatgtgtgt 1320
gaaagctggt agaaatccca attatggcta cacaagcttt gataccttca gttgggcttt 1380
tttgtccttg tttcgactaa tgactcagga cttctgggaa aatctttatc aactgacatt 1440
acgtgctgct gggaaaacgt acatgatatt ttttgattg gtcattttct tgggctcatt 1500
ctacctaata aatttgatcc tggctgtggt ggccatggcc tacgaggaac agaatcaggc 1560
caccttggaag gaagcagaac agaaagaggc cgaatttcag cagatgattg aacagcttaa 1620
aaagcaacag gaggcagctc agcaggcagc aacggcaact gcctcagaac attccagaga 1680
gccagtgca gcaggcaggc tctcagacag ctcatctgaa gcctctaagt tgagttccaa 1740
gagtgtctaa gaaagaagaa atcggaggaa gaaaagaaaa cagaaagagc agtctggttg 1800
ggaagagaaa gatgaggatg aattccaaaa atctgaatct gaggaacagca tcaggaggaa 1860
aggttttcgc ttctccattg aagggaaccg attgacatat gaaaagaggg actcctcccc 1920
acaccagtct ttgttgagca tccgtggctc cctattttca ccaaggcgaa atagcagaac 1980
aagccttttc agctttagag ggcgagcaaa ggatgtggga tctgagaacg acttcgcaga 2040
tgatgagcca gcacctttga ggataacgag agccgtagag attccttggt tgtgccccga 2100
cgacacggag agagacgcaa cagcaacctg agtcagacca gtaggtcatc ccggatgctg 2160
gcagtgtttc cagcgaatgg gaagatgcac agcactgtgg attgcaatgg tgtggtttcc 2220
ttggttggtg gaccttcagt tcctacatcg cctgttgagc agcttctgcc agagggtgata 2280
atagataagc cagctactga tgacaatgga acaaccactg aaactgaaat gagaaagaga 2340
aggtaagtt ctttccacgt ttccatggac tttctagaag atccttccca aaggcaacga 2400
gcaatgagta tagccagcat tctaacaat acagtagaag aacttgaaga atccaggcag 2460
aaatgcccac cctgttggtg taaattttcc aacatattct taatctggga ctgttctcca 2520
tattggttaa aagtgaacaa tgtgtcaac ctggttggtg tggaccatt tgttgacctg 2580
gccatcacca tctgtattgt cttaaatact cttttcatgg catggagca ctatccaatg 2640
acggaccatt tcaataatgt gcttacagta ggaaacttgg ttttacttgg gatctttaca 2700
gcagaaatgt ttctgaaaat tattgccatg gatccttact attatttcca agaaggctgg 2760
aatatctttg acggttttat tgtgacgctt agcctggtag aacttggact cgccaatgtg 2820

gaaggattat	ctgttctccg	ttcatttcga	ttgctgcgag	ttttcaagtt	ggcaaaatct	2880
tggccaacgt	taaatatgct	aataaagatc	atcgccaatt	ccgtgggggc	tctgggaaat	2940
ttaacctctg	tcttggccat	catcgtcttc	atTTTTgccc	tggtcggcat	gcagctcttt	3000
ggtaaaagct	acaaagattg	tgtctgcaag	atcgccagtg	attgtcaact	cccacgctgg	3060
cacatgaatg	acttcttcca	ctccttcctg	attgtgttcc	gcgtgctgtg	tggggagtg	3120
atagagacca	tgtgggactg	tatggagggt	gctggccaag	ccatgtgcct	tactgtcttc	3180
atgatgggtca	tgggtgattg	aaacctaagt	gtcctgaatc	tctttctggc	cttgcttctg	3240
agctcattta	gtgcagacaa	ccttgacagc	actgatgatg	ataatgaaat	gaataatctc	3300
caaattgctg	tggataggat	gcacaaagga	gtagcttatg	tgaaaagaaa	aatatatgaa	3360
tttattcaac	agtccttcat	taggaaacaa	aagattttag	atgaaattaa	accacttgat	3420
gatctaaaca	acaagaaaga	cagttgtatg	tccaatcata	cagcagaaat	tgggaaagat	3480
cttgactatc	ttaaagatgt	aaatggaact	acaagtggta	taggaactgg	cagcagtggt	3540
gaaaaataca	ttattgatga	aagtgattac	atgtcattca	taaacaaccc	cagtcttact	3600
gtgactgtac	caattgctgt	aggagaatct	gactttgaaa	atttaaacac	ggaagacttt	3660
agtagtgaat	cggatctgga	agaaagcaaa	gagaaactga	atgaaagcag	tagctcatca	3720
gaaggtagca	ctgtggacat	cggcgcacct	gtagaagaac	agcccgtagt	ggaacctgaa	3780
gaaactcttg	aaccagaagc	ttgtttcact	gaaggctgtg	tacaaagatt	caagtgttgt	3840
caaatcaatg	tggaagaagg	cagaggaaaa	caatgggtgga	acctgagaag	gacgtgtttc	3900
cgaatagttg	aacataactg	gtttgagacc	ttcattgttt	tcatgattct	ccttagtagt	3960
ggtgctctgg	catttgaaga	tatatatatt	gatcagcgaa	agacgattaa	gacgatgttg	4020
gaatatgctg	acaaggtttt	cacttacatt	ttcattctgg	aaatgcttct	aaaatgggtg	4080
gcatatggct	atcaaaatat	ttcaccaatg	cctgggtgtg	gctggacttc	ttaattgttg	4140
atgtttcatt	ggtcagttta	acagcaaatg	ccttggtgta	ctcagaactt	ggagccatca	4200
aatctctcag	gacactaaga	gctctgagac	ctctaagagc	cttatctcga	tttgaaggga	4260
tgaggggtgg	tgtgaatgcc	cttttaggag	caattccatc	catcatgaat	gtgcttctgg	4320
tttgtcttat	attctggcta	attttcagca	tcatgggcgt	aaatttgttt	gctggcaaat	4380
tctaccactg	tattaacacc	acaactggtg	acaggtttga	catcgaagac	gtgaataatc	4440
atactgattg	cctaaaacta	atagaaagaa	atgagactgc	tcgatggaaa	aatgtgaaag	4500
taaactttga	taatgtagga	tttggttacc	tctctttgct	tcaagttgcc	acattcaag	4560
gatggatgga	tataatgtat	gcagcagttg	attccagaaa	tgtggaactc	cagcctaagt	4620
atgaagaaag	tctgtacatg	tatctttact	ttgttatatt	catcatcttt	gggtccttct	4680
tcaccttgaa	cctgtttatt	ggtgtcatca	tagataattt	caaccagcag	aaaaagaagt	4740
ttggagggtca	agacatcttt	atgacagaag	aacagaagaa	atactataat	gcaatgaaaa	4800
aattaggatc	gaaaaaaccc	caaaagccta	tacctcgacc	aggaaacaaa	tttcaaggaa	4860
tggctcttga	cttcgtaacc	agacaagttt	ttgacataag	catcatgatt	ctcatctgtc	4920
ttaacatggt	cacaatgatg	gtggaaacag	atgaccagag	tgaatatgtg	actaccattt	4980
tgtcacgcat	caatctgggtg	ttcattgtgc	tattttactg	agagtgtgta	ctgaaactca	5040
tctctctacg	ccattattat	tttaccattg	gatggaatat	ttttgatttt	gtggttgtca	5100
ttctctccat	tgtaggatat	tttcttgccc	agctgataga	aaagtatttc	gtgtccccta	5160
ccctgttccg	agtgatccgt	cttgctagga	ttggccgaat	cctacgtctg	atcaaaggag	5220
caaaggggat	ccgcacgctg	ctctttgctt	tgatgatgtc	ccttctctcg	ttgtttaaca	5280
tcggcctcct	actcttccta	gtcatgttca	tctacgccat	ctttgggatg	tccaactttg	5340
cctatgttaa	gagggaaagt	gggatcgatg	acatgttcaa	ctttgagacc	tttggcaaca	5400
gcatgatctg	cctattccaa	attacaacct	ctgctggctg	ggatggattg	ctagcaccct	5460
ttctcaacag	taagccaccc	gactgtgacc	ctaataaagt	taaccctgga	agctcagtta	5520
aggagactg	tgggaaccca	tctgttgga	ttttcttttt	tgtcagttac	atcatcatat	5580
ccttctggt	tgtggtgaac	atgtacatcg	cggcatcct	ggagaacttc	agtgttgcta	5640
ctgaagaaag	tgcagagcct	ctgagtgaag	atgactttga	gatgttctat	gaggtttggg	5700
agaagtttga	tcccagtgca	actcagttca	tggaaatttga	aaaattatct	cagtttgcag	5760
ctgcgcttga	accgcctctc	aatctgccac	aaccaaacaa	actccagctc	attgccatgg	5820
atttgcccat	ggtgagtgg	gaccggatcc	actgtcttga	tatcttattt	gcttttaca	5880
agcgggttct	aggagagagt	ggagagatgg	atgctctacg	aatacagatg	gaagagcgat	5940
tcatggcttc	caatccttcc	aaggtctcct	atcagccaat	cactactact	ttaaaacgaa	6000
aacaagagga	agtatctgct	gtcattattc	agcgtgctta	cagacgccac	cttttaaagc	6060
gaactgtaaa	acaagcttcc	tttacgtaca	ataaaaacaa	aatcaaaggt	ggggctaata	6120
ttcttataaa	agaagacatg	ataattgaca	gaataaatga	aaactctatt	acagaaaaaa	6180
ctgatctgac	catgtccact	gcagcttgct	caccttccta	tgaccgggtg	acaaagccaa	6240

```

ttgtggaaaa acatgagcaa gaaggcaaa atgaaaaagc caaagggaaa taaatgaaaa 6300
taaataaaaa taattgggtg acaaattggt tacagcctgt gaaggtgatg tatttttatc 6360
aacaggactc ctttaggagg tcaatgccaa actgactgtt tttacacaaa tctccttaag 6420
gtcagtgcct acaataagac agtgaccctc tgtcagcaaa ctgtgactct gtgtaaaggg 6480
gagatgacct tgacaggagg ttactgttct cactaccagc tgacactgct gaagataaga 6540
tgcacaatgg ctagtcagac tgtagggacc agtttcaagg ggtgcaaacc tgtgattttg 6600
gggttgttta acatgaaaca ctttagtgta gtaattgtat ccactgtttg catttcaact 6660
gccacatttg tcacattttt atggaatctg ttagtggtt catctttttg ttaatccatg 6720
tgtttattat atgtgactat ttttgtaaac gaagtgtctg ttgagaaata ggctaaggac 6780
ctctataaca ggtatgccac ctggggggta tggcaaccac atggccctcc cagctacaca 6840
aagtcgtggt ttgcatgagg gcatgctgca cttagagatc atgcatgaga aaaagtcaca 6900
agaaaaacaa attctttaa atccaccatc ttctgggagg ggttaattgg tgataagtg 6960
aggtgctttg ttgatcttgt tttgcgaaat ccagccccta gaccaagtag attatttgtg 7020
ggtaggccag taaatcttag caggtgcaaa cttcattcaa atgtttggag tcataaatgt 7080
tatgtttctt tttgttgat taaaaaaaaa acctgaatag tgaatattgc ccctcaccct 7140
ccaccgccag aagactgaat tgacaaaaat tactctttat aaatttctgc tttttcctgc 7200
actttgttta gccatcttcg gctctcagca aggttgacac tgtatatgtt aatgaaatgc 7260
tatttattat gtaaatagtc attttaccct gtggtgcacg tttgagcaaa caaataatga 7320
cctaagcaca gtatttattg catcaaatat gtaccacaag aaatgtagag tgcaagcttt 7380
acacaggtaa taaaatgtat tctgtaccat ttatagatag tttggatgct atcaatgcat 7440
gtttatatta ccatgctgct gtatctggtt tctctcactg ctcagaatct catttatgag 7500
aaaccatatg tcagtggtaa agtcaaggaa attgttcaac agatctcatt tatttaagtc 7560
attaagcaat agtttgcagc actttaacag ctttttggtt atttttacat ttttaagtga 7620
taacatatgg tatatagcca gactgtacag acatgtttaa aaaaacacac tgcttaacct 7680
attaaatatg tgtttagaat tttataagca aatataaata ctgtaaaaag tcactttatt 7740
ttatttttca gcattatgta cataaatatg aagaggaaat tatcttcagg ttgatatac 7800
aatcactttt cttactttct gtccatagta ctttttcatg aaagaaattt gctaaataag 7860
acatgaaaac aagactgggt agttgtagat ttctgctttt taaattacat ttgctaattt 7920
tagattattt cacaatttta aggagcaaaa taggttcacg attcatatcc aaattatgct 7980
ttgcaattgg aaaagggttt aaaattttt ttatatttct ggtagtacct gcactaactg 8040
aattgaaggt agtgcttatg ttatttttgt tcttttttct tgacttcggt ttatgttttc 8100
atttcttttg agtaatgctg ctctagattg ttctaaatag aatgtgggct tcataatttt 8160
tttttccaca aaaacagagt agtcaactta tatagtcaat tacatcagga cattttgtgt 8220
ttcttacaga agcaaaccat aggtcctctt tttccttaaa actacttaga taaactgtat 8280
tcgtgaactg catgctggaa aatgctacta ttatgctaaa taatgctaac caacatttaa 8340
aatgtgcaaa actaataaag attacatttt ttattttt 8378

```

<210> 3
 <211> 2009
 <212> PRT
 <213> Homo sapiens

<400> 3
 Met Glu Gln Thr Val Leu Val Pro Pro Gly Pro Asp Ser Phe Asn Phe
 1 5 10 15

 Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Arg Arg Ile Ala Glu Glu
 20 25 30

 Lys Ala Lys Asn Pro Lys Pro Asp Lys Lys Asp Asp Asp Glu Asn Gly
 35 40 45

 Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Asn Leu Pro Phe Ile
 50 55 60

 Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Glu Pro Leu Glu Asp Leu

65	70	75	80
Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe Ile Val Leu Asn Lys Gly	85	90	95
Lys Ala Ile Phe Arg Phe Ser Ala Thr Ser Ala Leu Tyr Ile Leu Thr	100	105	110
Pro Phe Asn Pro Leu Arg Lys Ile Ala Ile Lys Ile Leu Val His Ser	115	120	125
Leu Phe Ser Met Leu Ile Met Cys Thr Ile Leu Thr Asn Cys Val Phe	130	135	140
Met Thr Met Ser Asn Pro Pro Asp Trp Thr Lys Asn Val Glu Tyr Thr	145	150	155
Phe Thr Gly Ile Tyr Thr Phe Glu Ser Leu Ile Lys Ile Ile Ala Arg	165	170	175
Gly Phe Cys Leu Glu Asp Phe Thr Phe Leu Arg Asp Pro Trp Asn Trp	180	185	190
Leu Asp Phe Thr Val Ile Thr Phe Ala Tyr Val Thr Glu Phe Val Asp	195	200	205
Leu Gly Asn Val Ser Ala Leu Arg Thr Phe Arg Val Leu Arg Ala Leu	210	215	220
Lys Thr Ile Ser Val Ile Pro Gly Leu Lys Thr Ile Val Gly Ala Leu	225	230	235
Ile Gln Ser Val Lys Lys Leu Ser Asp Val Met Ile Leu Thr Val Phe	245	250	255
Cys Leu Ser Val Phe Ala Leu Ile Gly Leu Gln Leu Phe Met Gly Asn	260	265	270
Leu Arg Asn Lys Cys Ile Gln Trp Pro Pro Thr Asn Ala Ser Leu Glu	275	280	285
Glu His Ser Ile Glu Lys Asn Ile Thr Val Asn Tyr Asn Gly Thr Leu	290	295	300
Ile Asn Glu Thr Val Phe Glu Phe Asp Trp Lys Ser Tyr Ile Gln Asp	305	310	315
Ser Arg Tyr His Tyr Phe Leu Glu Gly Phe Leu Asp Ala Leu Leu Cys	325	330	335
Gly Asn Ser Ser Asp Ala Gly Gln Cys Pro Glu Gly Tyr Met Cys Val	340	345	350
Lys Ala Gly Arg Asn Pro Asn Tyr Gly Tyr Thr Ser Phe Asp Thr Phe	355	360	365
Ser Trp Ala Phe Leu Ser Leu Phe Arg Leu Met Thr Gln Asp Phe Trp			

370	375	380
Glu Asn Leu Tyr Gln Leu Thr Leu Arg Ala Ala Gly Lys Thr Tyr Met 385 390 395 400		
Ile Phe Phe Val Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu Ile Asn 405 410 415		
Leu Ile Leu Ala Val Val Ala Met Ala Tyr Glu Glu Gln Asn Gln Ala 420 425 430		
Thr Leu Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln Met Ile 435 440 445		
Glu Gln Leu Lys Lys Gln Gln Glu Ala Ala Gln Gln Ala Ala Thr Ala 450 455 460		
Thr Ala Ser Glu His Ser Arg Glu Pro Ser Ala Ala Gly Arg Leu Ser 465 470 475 480		
Asp Ser Ser Ser Glu Ala Ser Lys Leu Ser Ser Lys Ser Ala Lys Glu 485 490 495		
Arg Arg Asn Arg Arg Lys Lys Arg Lys Gln Lys Glu Gln Ser Gly Gly 500 505 510		
Glu Glu Lys Asp Glu Asp Glu Phe Gln Lys Ser Glu Ser Glu Asp Ser 515 520 525		
Ile Arg Arg Lys Gly Phe Arg Phe Ser Ile Glu Gly Asn Arg Leu Thr 530 535 540		
Tyr Glu Lys Arg Tyr Ser Ser Pro His Gln Ser Leu Leu Ser Ile Arg 545 550 555 560		
Gly Ser Leu Phe Ser Pro Arg Arg Asn Ser Arg Thr Ser Leu Phe Ser 565 570 575		
Phe Arg Gly Arg Ala Lys Asp Val Gly Ser Glu Asn Asp Phe Ala Asp 580 585 590		
Asp Glu His Ser Thr Phe Glu Asp Asn Glu Ser Arg Arg Asp Ser Leu 595 600 605		
Phe Val Pro Arg Arg His Gly Glu Arg Arg Asn Ser Asn Leu Ser Gln 610 615 620		
Thr Ser Arg Ser Ser Arg Met Leu Ala Val Phe Pro Ala Asn Gly Lys 625 630 635 640		
Met His Ser Thr Val Asp Cys Asn Gly Val Val Ser Leu Val Gly Gly 645 650 655		
Pro Ser Val Pro Thr Ser Pro Val Gly Gln Leu Leu Pro Glu Val Ile 660 665 670		
Ile Asp Lys Pro Ala Thr Asp Asp Asn Gly Thr Thr Thr Glu Thr Glu		

675					680					685					
Met	Arg	Lys	Arg	Arg	Ser	Ser	Ser	Phe	His	Val	Ser	Met	Asp	Phe	Leu
690						695					700				
Glu	Asp	Pro	Ser	Gln	Arg	Gln	Arg	Ala	Met	Ser	Ile	Ala	Ser	Ile	Leu
705				710					715						720
Thr	Asn	Thr	Val	Glu	Glu	Leu	Glu	Glu	Ser	Arg	Gln	Lys	Cys	Pro	Pro
			725						730					735	
Cys	Trp	Tyr	Lys	Phe	Ser	Asn	Ile	Phe	Leu	Ile	Trp	Asp	Cys	Ser	Pro
			740					745					750		
Tyr	Trp	Leu	Lys	Val	Lys	His	Val	Val	Asn	Leu	Val	Val	Met	Asp	Pro
		755					760						765		
Phe	Val	Asp	Leu	Ala	Ile	Thr	Ile	Cys	Ile	Val	Leu	Asn	Thr	Leu	Phe
	770					775					780				
Met	Ala	Met	Glu	His	Tyr	Pro	Met	Thr	Asp	His	Phe	Asn	Asn	Val	Leu
785				790					795						800
Thr	Val	Gly	Asn	Leu	Val	Phe	Thr	Gly	Ile	Phe	Thr	Ala	Glu	Met	Phe
			805						810					815	
Leu	Lys	Ile	Ile	Ala	Met	Asp	Pro	Tyr	Tyr	Tyr	Phe	Gln	Glu	Gly	Trp
		820						825					830		
Asn	Ile	Phe	Asp	Gly	Phe	Ile	Val	Thr	Leu	Ser	Leu	Val	Glu	Leu	Gly
	835						840						845		
Leu	Ala	Asn	Val	Glu	Gly	Leu	Ser	Val	Leu	Arg	Ser	Phe	Arg	Leu	Leu
	850					855					860				
Arg	Val	Phe	Lys	Leu	Ala	Lys	Ser	Trp	Pro	Thr	Leu	Asn	Met	Leu	Ile
865				870					875						880
Lys	Ile	Ile	Gly	Asn	Ser	Val	Gly	Ala	Leu	Gly	Asn	Leu	Thr	Leu	Val
			885						890					895	
Leu	Ala	Ile	Ile	Val	Phe	Ile	Phe	Ala	Val	Val	Gly	Met	Gln	Leu	Phe
		900						905					910		
Gly	Lys	Ser	Tyr	Lys	Asp	Cys	Val	Cys	Lys	Ile	Ala	Ser	Asp	Cys	Gln
	915					920						925			
Leu	Pro	Arg	Trp	His	Met	Asn	Asp	Phe	Phe	His	Ser	Phe	Leu	Ile	Val
	930					935					940				
Phe	Arg	Val	Leu	Cys	Gly	Glu	Trp	Ile	Glu	Thr	Met	Trp	Asp	Cys	Met
945				950					955						960
Glu	Val	Ala	Gly	Gln	Ala	Met	Cys	Leu	Thr	Val	Phe	Met	Met	Val	Met
			965						970					975	
Val	Ile	Gly	Asn	Leu	Val	Val	Leu	Asn	Leu	Phe	Leu	Ala	Leu	Leu	Leu

980	985	990
Ser Ser Phe Ser Ala Asp Asn Leu Ala Ala Thr Asp Asp Asp Asn Glu 995 1000 1005		
Met Asn Asn Leu Gln Ile Ala Val Asp Arg Met His Lys Gly Val Ala 1010 1015 1020		
Tyr Val Lys Arg Lys Ile Tyr Glu Phe Ile Gln Gln Ser Phe Ile Arg 1025 1030 1035 1040		
Lys Gln Lys Ile Leu Asp Glu Ile Lys Pro Leu Asp Asp Leu Asn Asn 1045 1050 1055		
Lys Lys Asp Ser Cys Met Ser Asn His Thr Ala Glu Ile Gly Lys Asp 1060 1065 1070		
Leu Asp Tyr Leu Lys Asp Val Asn Gly Thr Thr Ser Gly Ile Gly Thr 1075 1080 1085		
Gly Ser Ser Val Glu Lys Tyr Ile Ile Asp Glu Ser Asp Tyr Met Ser 1090 1095 1100		
Phe Ile Asn Asn Pro Ser Leu Thr Val Thr Val Pro Ile Ala Val Gly 1105 1110 1115 1120		
Glu Ser Asp Phe Glu Asn Leu Asn Thr Glu Asp Phe Ser Ser Glu Ser 1125 1130 1135		
Asp Leu Glu Glu Ser Lys Glu Lys Leu Asn Glu Ser Ser Ser Ser Ser 1140 1145 1150		
Glu Gly Ser Thr Val Asp Ile Gly Ala Pro Val Glu Glu Gln Pro Val 1155 1160 1165		
Val Glu Pro Glu Glu Thr Leu Glu Pro Glu Ala Cys Phe Thr Glu Gly 1170 1175 1180		
Cys Val Gln Arg Phe Lys Cys Cys Gln Ile Asn Val Glu Glu Gly Arg 1185 1190 1195 1200		
Gly Lys Gln Trp Trp Asn Leu Arg Arg Thr Cys Phe Arg Ile Val Glu 1205 1210 1215		
His Asn Trp Phe Glu Thr Phe Ile Val Phe Met Ile Leu Leu Ser Ser 1220 1225 1230		
Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile Asp Gln Arg Lys Thr Ile 1235 1240 1245		
Lys Thr Met Leu Glu Tyr Ala Asp Lys Val Phe Thr Tyr Ile Phe Ile 1250 1255 1260		
Leu Glu Met Leu Leu Lys Trp Val Ala Tyr Gly Tyr Gln Thr Tyr Phe 1265 1270 1275 1280		
Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile Val Asp Val Ser Leu		

1285	1290	1295
Val Ser Leu Thr Ala Asn Ala Leu Gly Tyr Ser Glu Leu Gly Ala Ile 1300 1305 1310		
Lys Ser Leu Arg Thr Leu Arg Ala Leu Arg Pro Leu Arg Ala Leu Ser 1315 1320 1325		
Arg Phe Glu Gly Met Arg Val Val Val Asn Ala Leu Leu Gly Ala Ile 1330 1335 1340		
Pro Ser Ile Met Asn Val Leu Leu Val Cys Leu Ile Phe Trp Leu Ile 1345 1350 1355 1360		
Phe Ser Ile Met Gly Val Asn Leu Phe Ala Gly Lys Phe Tyr His Cys 1365 1370 1375		
Ile Asn Thr Thr Thr Gly Asp Arg Phe Asp Ile Glu Asp Val Asn Asn 1380 1385 1390		
His Thr Asp Cys Leu Lys Leu Ile Glu Arg Asn Glu Thr Ala Arg Trp 1395 1400 1405		
Lys Asn Val Lys Val Asn Phe Asp Asn Val Gly Phe Gly Tyr Leu Ser 1410 1415 1420		
Leu Leu Gln Val Ala Thr Phe Lys Gly Trp Met Asp Ile Met Tyr Ala 1425 1430 1435 1440		
Ala Val Asp Ser Arg Asn Val Glu Leu Gln Pro Lys Tyr Glu Glu Ser 1445 1450 1455		
Leu Tyr Met Tyr Leu Tyr Phe Val Ile Phe Ile Ile Phe Gly Ser Phe 1460 1465 1470		
Phe Thr Leu Asn Leu Phe Ile Gly Val Ile Ile Asp Asn Phe Asn Gln 1475 1480 1485		
Gln Lys Lys Lys Phe Gly Gly Gln Asp Ile Phe Met Thr Glu Glu Gln 1490 1495 1500		
Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu Gly Ser Lys Lys Pro Gln 1505 1510 1515 1520		
Lys Pro Ile Pro Arg Pro Gly Asn Lys Phe Gln Gly Met Val Phe Asp 1525 1530 1535		
Phe Val Thr Arg Gln Val Phe Asp Ile Ser Ile Met Ile Leu Ile Cys 1540 1545 1550		
Leu Asn Met Val Thr Met Met Val Glu Thr Asp Asp Gln Ser Glu Tyr 1555 1560 1565		
Val Thr Thr Ile Leu Ser Arg Ile Asn Leu Val Phe Ile Val Leu Phe 1570 1575 1580		
Thr Gly Glu Cys Val Leu Lys Leu Ile Ser Leu Arg His Tyr Tyr Phe		

1585	1590	1595	1600
Thr Ile Gly Trp Asn Ile Phe Asp Phe Val Val Val Ile Leu Ser Ile	1605	1610	1615
Val Gly Met Phe Leu Ala Glu Leu Ile Glu Lys Tyr Phe Val Ser Pro	1620	1625	1630
Thr Leu Phe Arg Val Ile Arg Leu Ala Arg Ile Gly Arg Ile Leu Arg	1635	1640	1645
Leu Ile Lys Gly Ala Lys Gly Ile Arg Thr Leu Leu Phe Ala Leu Met	1650	1655	1660
Met Ser Leu Pro Ala Leu Phe Asn Ile Gly Leu Leu Leu Phe Leu Val	1665	1670	1675
Met Phe Ile Tyr Ala Ile Phe Gly Met Ser Asn Phe Ala Tyr Val Lys	1685	1690	1695
Arg Glu Val Gly Ile Asp Asp Met Phe Asn Phe Glu Thr Phe Gly Asn	1700	1705	1710
Ser Met Ile Cys Leu Phe Gln Ile Thr Thr Ser Ala Gly Trp Asp Gly	1715	1720	1725
Leu Leu Ala Pro Ile Leu Asn Ser Lys Pro Pro Asp Cys Asp Pro Asn	1730	1735	1740
Lys Val Asn Pro Gly Ser Ser Val Lys Gly Asp Cys Gly Asn Pro Ser	1745	1750	1755
Val Gly Ile Phe Phe Phe Val Ser Tyr Ile Ile Ile Ser Phe Leu Val	1765	1770	1775
Val Val Asn Met Tyr Ile Ala Val Ile Leu Glu Asn Phe Ser Val Ala	1780	1785	1790
Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu Asp Asp Phe Glu Met Phe	1795	1800	1805
Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp Ala Thr Gln Phe Met Glu	1810	1815	1820
Phe Glu Lys Leu Ser Gln Phe Ala Ala Ala Leu Glu Pro Pro Leu Asn	1825	1830	1835
Leu Pro Gln Pro Asn Lys Leu Gln Leu Ile Ala Met Asp Leu Pro Met	1845	1850	1855
Val Ser Gly Asp Arg Ile His Cys Leu Asp Ile Leu Phe Ala Phe Thr	1860	1865	1870
Lys Arg Val Leu Gly Glu Ser Gly Glu Met Asp Ala Leu Arg Ile Gln	1875	1880	1885
Met Glu Glu Arg Phe Met Ala Ser Asn Pro Ser Lys Val Ser Tyr Gln			

1890	1895	1900
Pro Ile Thr Thr Thr Leu Lys Arg Lys Gln Glu Glu Val Ser Ala Val		
1905	1910	1915 1920
Ile Ile Gln Arg Ala Tyr Arg Arg His Leu Leu Lys Arg Thr Val Lys		
	1925	1930 1935
Gln Ala Ser Phe Thr Tyr Asn Lys Asn Lys Ile Lys Gly Gly Ala Asn		
	1940	1945 1950
Leu Leu Ile Lys Glu Asp Met Ile Ile Asp Arg Ile Asn Glu Asn Ser		
	1955	1960 1965
Ile Thr Glu Lys Thr Asp Leu Thr Met Ser Thr Ala Ala Cys Pro Pro		
	1970	1975 1980
Ser Tyr Asp Arg Val Thr Lys Pro Ile Val Glu Lys His Glu Gln Glu		
1985	1990	1995 2000
Gly Lys Asp Glu Lys Ala Lys Gly Lys		
	2005	

<210> 4
 <211> 1246
 <212> DNA
 <213> Homo sapiens

<400> 4

mtvvgsdntr	saarrakakn	kdkkdddngk	nsdagknygd	mvssddyynkk	tvnkgkarsa	60
tsaytnrkak	vhssmmcttn	cvmtmsndwt	knvyttgyts	kargcdtrdw	nwdtvtavtv	120
ngnsarttrvr	aktsvgktvg	asvkksdvm	vcsvagmgnr	nkcwtnashs	kntvnyngtn	180
tvdwksydsr	yhygdacgns	sdagcgymcv	kagrnnygyt	sdtswasrmt	dwnytraagk	240
tymvgsyna	vvamaynata	kamkkaaaat	atashrsaa	grsdsssask	ssksakrrnr	300
rkkrrksggk	ddkssdsrrk	grsgnrtykr	ysshssrgss	rrnsrtssrg	rakdvgsnda	360
ddhstdnsrr	dsvrhgrn	snstsrssrm	avangknhst	vdngvsvsg	gsvtsvgvdk	420
atddngtttt	mrkrrssshv	smddsrrams	astntvsrkc	cwyksnwcds	ywkvhvvnv	480
vmdvdatcvn	tmamhymtdh	nnvtvgntvg	tamkamdyyy	gwndgvtsvg	anvgsvrsrr	540
vkakswtnmk	gnsvgagntv	avavvgmgks	ykdcvckasd	crwhmndhsv	rvcgwtmwdc	600
mvagamctvm	mvnvgnvna	sssadnaatd	ddnmnnavdr	mhhkgvayvkr	kysrkkdkdd	660
nnkkdscmsn	htagkddykd	vngttsgggtg	ssvkydsdym	snnstvtvav	gsdnntdsss	720
dsknssssss	gstvdgavvv	tactgcvrkc	cnvgrgkwn	rrtcrvhnwt	vmssgaadyd	780
rktktmyadk	vtymkwvayg	ytytnawcwg	vdvsvstana	gysgaksrtr	arrasrgmrv	840
vnagasmnv	vcwsmgvnag	kyhcntttgd	rddvnnhtdc	krntarwknv	kvndnvvgys	900
vatkgwmdmy	aavdsrnvky	symyyvgstn	gvdnkkkkkg	dmtkkyyynam	kkgskkkrgn	960
kgmvdvtrvd	smcnmvtmmv	tddsyvttsr	nnvtgcvksr	hyytgwndvv	vsvgmakyvs	1020
trvrargrrk	gakgrtamms	angvmyagms	nayvkrvgdd	mntgnsmtt	sagwdgansk	1080
dcdnkvnsgs	vkgdcgnsvg	vsysvvvnmy	avnsvatsas	ddmyvwkdda	tmksaaannk	1140
amdmsvgdrh	cdatkrvgsg	mdarmmasn	skvsytttkr	kvsavrayrr	hkrtvkasty	1200
nknkkggank	dmdrnnstkt	dtmstaacsy	drvtkvkhgk	dkakgk		1246

<210> 5
 <211> 850
 <212> DNA
 <213> Homo sapiens

<400> 5

```
ctaaaataat gctaaagttt ttcaagtact acttgaaaat agctatatatt actttcaaac 60
cttttcctct ttgagtcatt aggttcatga tattatatag caatagggaa tgaaagagaa 120
gcaaggagaa gcaatactgg gagattacag agaagaaagg aaaaaaggct gagagaaaag 180
aggttgagga agaaatcata aatctggatt gtgagaaagt gtttaatat tagccactag 240
atggcgatgt aatgtaagggt gctgtcctga cttttttttt ttttttttga aacaagctat 300
ttgctgattt gtattaggta ccatagagtg aggcgaggat gaagccgaga agatactgca 360
gaggtctctg gtgcatgtgt gtatgtgtgc gtttgtgtgt gtttgtgtgt ctgtgtgttc 420
tgccccagtg agactgcagc ccttgtaaact actttgacac cttttgcaag aaggaatctg 480
aacaattgca actgaaggca cattgttatc atctcgtctt tgggtgatgc tgttcctcac 540
tgcagatgga taattttcct tttaatcagg taagccatct aattgtttca tcttgatttt 600
aagttttattc attccagttt ttcccttgga aaaagagtcc atggaaattc agtttgggca 660
gagcaggaag tccatttttg tatgtgtatt cagaccaact gtccccctcc tccctctcct 720
cctcttcttg tccccctccc cgcgccctcc tctctcaacc ttccatgaac tgaaatcagg 780
tttgttttgc agttcagcat tttgatagaa gatgggattc tttggcctga aatagcttgg 840
catctggcca                                     850
```

<210> 6

<211> 483

<212> DNA

<213> Homo sapiens

<400> 6

```
acatctctta gtcctctctt aaatatctgt attcctttta ttttaggaat ttcatatgca 60
gaataaatgg taattaaaaat gtgcaggatg acaagatgga gcaaacagtg cttgtaccac 120
caggacctga cagcttcaac ttcttcacca gagaatctct tgcggctatt gaaagacgca 180
ttgcagaaga aaaggcaaag aatcccaaac cagacaaaaa aagatgacga cgaaaaatgg 240
cccaaagcaa atagtgactt ggaagctgga aagaaccttc catttattta tggagacatt 300
cctccagaga tgggtgtcaga gcccctggag gacctggacc cctactatat caataagaaa 360
gtgagtgttt tttttatcag gcatattttt gctgctaatt gcctactgca ttccttggtgac 420
tggtgtagca ccaacacatg ccaatagcac aaatctagta tctctgttag aatgaacaca 480
ttt                                     483
```

<210> 7

<211> 497

<212> DNA

<213> Homo sapiens

<400> 7

```
taagaagaga tccagtgaca gtttgttttc atggggcact ttaggaaatt gtgattgtgc 60
tggtttctca tttaacttta caataattta ttatgacaag taacagaaaag tagataacag 120
agtttaagtg gtttatactt tcatacttct atgttgtgtt cctgtcttac agacttttat 180
agtattgaat aaagggaagg ccactctccg gttcagtgcc acctctgccc tgtacatttt 240
aactcccttc aatcctctta ggaaaatagc tattaagatt ttggtacatt catatccttt 300
ttcaagtgat taatattaac tatttgtaca tgatctgtaa gcactttata gctaaatatc 360
aaattaagtt gggaaatgtc catattatat aggtttcatc actctcattt tgcattcttg 420
tcatattagc ctattcttta aagttcatta atcacataga cattactgaa acatgtactc 480
tttaacattt tatatat                                     497
```

<210> 8

<211> 501

<212> DNA

<213> Homo sapiens

```

<400> 8
tcatatacat tacctcattt aatctataca aatactcagt gaaggtgata ttattaccca 60
catttttacac atgaagaaat tgaaatgtaa ggagattaga agacttgccc acaatgcatt 120
tatccctgaa ttttggctaa gctgcagttt gggcttttca atgttagctt tttgtaatat 180
aacacttgga ttttgatttt cttttgtgtg ttccttaaca ataacctaca ttattcagca 240
tgctaattat gtgcactatt ttgacaaact gtgtgtttat gacaatgagt aaccctcctg 300
attggacaaa gaatgtagag taagttcaac ttatatTTTT aataacatat atacattygg 360
gattytgaaa ctgtgtctta atgtagtctt aaaataaaaac tgaagagcat tttattaaag 420
tcattcctag acaaaattac gcagcaagag gacaatgctc attggccctc aggctgctg 480
gcgttatact gattatcact c 501

```

```

<210> 9
<211> 563
<212> DNA
<213> Homo sapiens

```

```

<400> 9
gctaaataga tttcatatac cttgtatttc tcacactact ctttaagacac tttacgaaac 60
aactctttgt gttaggaagc tgaattttaa tttagggcta cgtttcattt gtatgaaatt 120
aaaatccatc tgcttagttt tcttttttag tatttatcta ttccactgat ggagtgataa 180
gaaattggta tgctatgaaa aaacactggt actttatcaa attttttggga tgctgtttt 240
cagatacacc ttcacaggaa tatatacttt tgaatcactt ataaaaatta ttgcaagggg 300
attctgttta gaagatttta ctttccttcg ggatccatgg aactggctcg atttactgt 360
cattacattt gcgtaagtgc ctttbytga aactttaagag agaacatagt ttggttttcc 420
atcagtgtt atgcttttaa gaataggttt gctttacctg tagaatattt ttgtgtgatt 480
tatacattca aactctggat ttcaatttag cacaacaaag gtctaagtgg aatttacta 540
tagcatgaag gctttgcagt agt 563

```

```

<210> 10
<211> 253
<212> DNA
<213> Homo sapiens

```

```

<400> 10
cttataagcc catgcagtaa tataaatcct gctaaaatct tgaataattc tgatttaatt 60
ctacaggttt gtaacagaat ttgtaaacct aggcaatttt tcagctcttc gcactttcag 120
agtcttgaga gctttgaaaa ctatttcggt aattccaggt aagaagtgat tagagtaaag 180
gataggctct ttgtacctac agctttttct ttgtgtcctg tttttgtgtt tgtgtgtgaa 240
ctcccgctta cag 253

```

```

<210> 11
<211> 340
<212> DNA
<213> Homo sapiens

```

```

<400> 11
gtaagaagtg attagagtaa aggataggct ctttgtacct acagcttttt ctttgtgtcc 60
tgtttttgtg tttgtgtgtg aactcccgtt tacaggtagc tcacagagtt tgtggacctg 120
ggcaatgtct cggcattgag aacattcaga gttctccgag cattgaagac gatttcagtc 180
attccagggt agagcaagg tagataatga gacggaccca tcatgtgatt cagcatcctt 240
ctctgcttga cattcagttt tacagaaaat caggaatcat aagactaggt gttcaaagaa 300
atgattatta tgtagacat agcttatcag cctggagtta 340

```

<210> 12
 <211> 409
 <212> DNA
 <213> Homo sapiens

<400> 12
 cacgcgtgct tagccctcat agtaatagcc tcctaccttc aggcctgaaa accattgtgg 60
 gagccctgat ccagtctgtg aagaagctct cagatgtaat gatcctgact gtgttctgtc 120
 tgagcgtatt tgctctaatt gggctgcagc tgttcatggg caacctgagg aataaatgta 180
 tacaatggcc tcccaccaat gcttccttgg aggaacatag tatagaaaag aatataactg 240
 tgaattataa tggtagactt ataaatgaaa ctgtctttga gtttgactgg aagtcataata 300
 ttcaagattc aagtaagaat tattgttatg tacatttcct taaaaagtag aattggattg 360
 tttgtaacac aaaggataaa tacttgaggg gctggatatc ccattttac 409

<210> 13
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 13
 cgcgcaataa cttgtgcctt tgaatgaata atatatttaa aattactcaa taaacttaaa 60
 agtagaacct gaccttcctg ttctctttga gtgtttttta caatgcaaat gttcagcata 120
 cgactttctt ttttcaaaca ggatatcatt atttcctgga gggtttttta gatgcactac 180
 tatgtggaaa tagctctgat gcagggtgaag tcaatattgt gtgcatctgt gtatattgta 240
 tgtacacaat acatatgtgt atcttt 266

<210> 14
 <211> 604
 <212> DNA
 <213> Homo sapiens

<400> 14
 aggtgttgaa aatgcaaatt atcaacaaaa attattttgt aaaatattat tagaaatgct 60
 gcaccatatt ttaatgatga caccaagtag ctaataagac tatatgcagt caaaagttag 120
 gaaatagatt agttacttat ttgtcaaact tttattttga aataccaaat ctttctgact 180
 aggcaatatc atagcatagt atcagagtaa aaaggcagca gaacgacttg taatactttc 240
 ttttacccca cttgcagcca atgtccagag ggatatatgt gtgtgacagc tggtagaaat 300
 cccaattatg gctacacaag ctttgatacc ttcagttggg cttttttgtc cttgtttcga 360
 ctaatgactc aggacttctg ggaaaatctt tatcaactgg tgagaactaa agagccacac 420
 tctccattta agtaaaaagta tacaagaaaa ccaattgagt tatgaaatta aaaccggatg 480
 ataatatagt agaaaagagca gaacttgaca cgagacttga gttcctctat cctattgatt 540
 ataacacata ctgagcagag tgatgccaaag gattgcaatt ctctccatt tcttcttggc 600
 tcaa 604

<210> 15
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 15
 ttatatctga gttttgctag ccacatgagt aaattgaaag ttgagcacc ttagtgaata 60
 atattgggaa ataattctga tatttttgtt tgcagacatt acgtgctgct gggaaaacgt 120
 acatgatatt ttttgtattg gtcattttct tgggctcatt ctacctaata aatttgatcc 180

tggtctgtggt	ggccatggcc	tacgaggaac	agaatcaggc	caccttgga	gaagcagaac	240
agaaagaggc	cgaatttcag	cagatgattg	aacagcttaa	aaagcaacag	gaggcagctc	300
aggtaagctg	ccctgtctcat	ggcactgacc	tttatcgtct	gatgtactat	atgagagaag	360
tagtctagag	cggtgtgat					378

<210> 16
 <211> 845
 <212> DNA
 <213> Homo sapiens

<400> 16

caacccta	taaataccaa	tttttaaagt	aaatcaa	ccaaaaagta	atgaatttat	60
tttcttgtt	atacatgtt	gatattttt	aatacgtgt	ctgtggagca	ttaacagaga	120
cataataaat	gttaccatgg	agcaaaactaa	attatctcca	aaagccttca	ttaggtagaa	180
agaaaaaaa	aatctcctct	tatacttgca	gagaatcttc	tctgtgagat	gatcttcagt	240
cagttcaata	tatttttttaa	aagccatgca	aatacttcag	ccctttcaaa	gaaagataca	300
gtctcttcag	gtgctatgtt	aaaatcattt	ctcttcaata	tagcaggcag	caacggcaac	360
tgcctcagaa	cattccagag	agcccagtgc	agcaggcagg	ctctcagaca	gctcatctga	420
agcctctaag	ttgagttcca	agagtgtctaa	ggaaagaaga	aatcggagga	agaaaagaaa	480
acagaaagag	cagtctgggtg	gggaagagaa	agatgaggat	gaattccaaa	aatctgaatc	540
tgaggacagc	atcaggaggw	aagggttttcg	cttctccatt	gaagggaacc	ggttgacata	600
tgaaaagagg	tactcctccc	cacaccaggt	atggcactgc	tgagtttact	gatgcatggt	660
tgaaaattaa	aacatgggag	agagggggag	atthagaaaa	tggactcagg	aatttttatc	720
aactgaatca	accactgttg	tgttatattt	aaacccatcc	cttcttcaca	tagttatgca	780
aaaactttac	tccacagata	tgtaagtcta	cagctcgggtg	tagttaagat	aacaccaagt	840
tgaca						845

<210> 17
 <211> 965
 <212> DNA
 <213> Homo sapiens

<400> 17

cattgccata	ttctaaggat	gtttcccttt	gaacttgaga	aatggtcggt	caggggtgtgt	60
gtgtatgtgt	gtgtgtgtgt	gtttcaatat	gttaagggtt	caatctatct	cctcattctt	120
taatcccaag	ggctagaaac	tttctttttat	caaggtaatt	taattttaatg	tgaatgcaca	180
taaaatgaga	atgataatca	aaaggaatga	accatattct	gttatgaatg	ctgaaatctc	240
cttctacata	atcttgcaaa	atgaaatcac	attcaaatgt	ccatattaat	atgactctat	300
ttgthtgctc	tttcaaaactt	ctagtctttg	ttgagcatcc	gtggctccct	attttcacca	360
aggcgaata	gcagaacaag	ccttttcagc	tttagagggc	gagcaaagga	tgtgggatct	420
gagaacgact	tcgcagatga	tgagcacagc	acctttgagg	ataacgagag	ccgtagagat	480
tccttgtttg	tgccccgacg	acacggagag	agacgcaaca	gcaacctgag	tcagaccagt	540
aggtcatccc	ggatgctggc	agtgtttcca	gcgaatggga	agatgcacag	cactgtggat	600
tgcaatgggtg	tgggttcctt	ggttgggtgga	ccttcagttc	ctacatcgcc	tgttgacag	660
cttctgccag	aggtgataat	agataagcca	gctactgatg	acaatgtaag	gaagtytta	720
atagttcagg	catggctggc	tcactattgc	tgaccagcc	agtgtgtcta	cagaacggca	780
accttgagaa	tgattcctgg	ttggtcacgc	tgtgaatgca	cctgcatctt	gtaatatctt	840
tgatagacta	accaactaaa	acttaaaacc	ttagcagtcg	cctgcacaaa	cctgaatgca	900
tttacttatt	aaaagtgcta	aggattgatt	agacacaata	attactgcct	ccagttggag	960
gattt						965

<210> 18
 <211> 641
 <212> DNA

<213> Homo sapiens

<400> 18

```
aagagtttta tcaactatat taaaattatt ttgtatttta taaaattatg aaatcaggaa 60
gttaacatct tgggtttttgc tgtatgacta aatgggttaac agtttgaaca ttccaggcta 120
atgatacaat aagtcagaaa tatctgccat caccaattga atatgaaagt gcatgatgca 180
tgtgtttcat gaaattcact gtgtcaccat ttggttggtt gcttgtcata ttgctcaaat 240
taattgttta atgcattagc attttttttt acagggaaca accactgaaa ctgaaatgag 300
aaagagaagg tcaagttctt tccacgtttc catggacttt ctagaagatc cttcccaaag 360
gcaacgagca atgagtatag ccagcattct aacaaatata gtagaagggt ggtaacaaat 420
tctatttttcg tttcaattat tttcaccaaa cttatatgtt ctcatctcaa acaaataat 480
ttgtgagttg ggaatagtgc attctaataa aaagacagtc taattcaaga gctgttattt 540
cttataatcta ctcatatatt ctagaagcct taacaattta ttttaaaatg agtgatattg 600
ggactaagac tgttttccta actgtgtagc aactctttga a 641
```

<210> 19

<211> 818

<212> DNA

<213> Homo sapiens

<400> 19

```
gtgaggcggc acatgaaaga ccacccattt aacctgaggc caagtgctga gccacaatgg 60
cagtgcataa gacaaaaaac taccatttgt tacctgggcc ctatgtgtgt gtctgatgaa 120
ataaccttgg gaggttttaga gtaaactgta atttttttta caagtacaaa aaaggggtgc 180
tctgtaacaa aaatgtgttg attactgaaa ataagtttag tggatatgaa ataaatgtgt 240
gtgtataaag tawacctttt ggtgggtctt tttttttttt ttcttaatct agaacttgaa 300
gaatccaggc agaaatgccc accctgttgg tataaatttt ccaacatatt cttaatctgg 360
gactgttctc catattgggt aaaagtgaac catgttgtca acctgggtgt gatggacca 420
tttgttgacc tggccatcac catctgtatt gtcttaaata ctcttttcat ggccatggag 480
cactatccaa tgacggacca tttcaataat gtgcttacag taggaaactt ggtaagcata 540
ttggaaggtaaatgtgttta gtcttcaaat tttctgcttg aaaaactgtt tacatttaat 600
tgtgtatagc agtctttcaa ccaccttcca tgcttctgg cccctgcaaa atcgcaatta 660
tatttagctg gctatactct acttttttgc caaaaataat cacccttaat gtgctcacia 720
aaactgagaa aggcataggc ctacagcact acttgaaaag tcaacagcaa tatttataat 780
ttttcaggat ccagaagtag ctcatagatt aagaacat 818
```

<210> 20

<211> 645

<212> DNA

<213> Homo sapiens

<400> 20

```
caagccattt caccatctg aagacctcag tttccttatt tgtaaagtaa taattgtata 60
ttatctactt cgcgtttcca caaggataaa attaaataat gtatatgawa gtctttcatc 120
aactacaaat tgccatacaa atttaagtta gtaatagaat cattgtggga aaatagcata 180
agcattatgt tctaagagca aatcttatgt catgtatgtt attatctggg ggaattagat 240
taatttttgt ttgatcttag gttttcaactg ggatctttac agcagaaatg tttctgaaaa 300
ttattgacct ggatccttac tattatttcc aagaaggctg gaatatcttt gacggtttta 360
ttgtgacgct tagcctggta gaacttgagc tcgccaatgt ggaagggtta tctgttctcc 420
gttcatttgc attggtaaaa aaaaaaaaaa aaggaaacca attcaaaaac ctttctaaca 480
ttcagggttc ttgcatagca ttgtcatagt ttttttgcca cacaaccatt aggcattgta 540
agtttttctg taacatttgc attgtcaaaa acttttctta catgggaata attctcaatt 600
attagggtac cttagttcaa gggcwaggtc ggaaaggtaa cggtt 645
```

<210> 21
 <211> 829
 <212> DNA
 <213> Homo sapiens

<400> 21
 gaatttctaatt gaccattttct aggttaaagct caatatatat aatgcttttta agaatacatc 60
 aaatatatat taatcttttca ttttccagct gcgagatttc aagttggcaa aatcttggcc 120
 aacgtttaat atgctaataa agatcatcgg caattccgtg ggggctctgg gaaatttaac 180
 cctcgtcttg gccatcatcg tcttcatttt tgccgtggtc ggcatgcagc tctttggtaa 240
 aagctacaaa gatttgtgtct gcaagatcgc cagtgtattgt caactccac gctggcacat 300
 gaatgacttc ttccactcck hccgtattgt gttccgcgtg ctgtgtgggg agtggataga 360
 gaccatgtgg gactgtatgg aggttgctgg tcaagccatg tgccttactg tcttcatgat 420
 ggtcatgggtg attggaaacc tagcggtagt taccactta agatatgcat tttggaaata 480
 caccagcatg gcacatgtat acatatgtaa ctaacctgca cattgtgcac atgtacccta 540
 aaactttaaag tataataaaa aaaaagagta taatttaatg gtgactgttt tgtcaaaaag 600
 aaaaacaaac tatgattatt ggtttaaaag tccattacct tggatatatt atcacttta 660
 caacacagca atatabcagt gcccctgcat tttttatacc aaattctatt ttgtcagtca 720
 ctttatcaca ttttttatgt gaattacaat agagtatcat attgagatga gcctaaaagg 780
 atgtgctggg accattttat aaattcagag ccaaggaaga gagaagtct 829

<210> 22
 <211> 909
 <212> DNA
 <213> Homo sapiens

<400> 22
 gaatttctcgt attgtacaca tataaatctg ttttcttcta ctcatacaat tttagagtta 60
 aaaaaacctt agattagctc attcaatttc actttacgaa tgggagaact tgagagcaac 120
 agaaatcatg tctttgtcca aggatgtgct attgagccag tcacaaattc agatcaccca 180
 tcttctaatac actatgctgt ggtgtttcct tctcatcaag ttttagaact tagagttttt 240
 tccacactta aaagaaagaa taagtgtatt taatctgctc ttccctacat tgggtgtaaaa 300
 ttataatcat gtttttgggtg tttttaagggt cctgaatctc tttctggcct tgcttctgag 360
 ctcatttagt gcagacaacc ttgcagccac tgatgatgat aatgaaatga ataactctca 420
 aattgctgtg gataggatgc acaaaggagt agcttatgtg aaaagaaaaa tatatgatt 480
 tattcaacag tccttcatta ggaaacaaaa gatttttagat gaaatttaac cacttgatga 540
 tctaaacaac aagaaagaca gttgtatgtc caatcataca gcagaaattg ggaaagatct 600
 tgactatctt aaagatgtaa atggaactac aagtgggtata ggaactggca gcagtgttga 660
 aaaatacatt attgatgaaa gtgattacat gtcattcata aacaaccca gtcttactgt 720
 gactgtacca attgctgtag gagaatctga ctttgaaaat ttaaacacgg aagactttag 780
 tagtgaatcg gatctggaag aaagcaaaga ggtaagattc tataggtgtg ggtaggtatg 840
 aatacatata catatatata tatacacaca tacagatgay cctcagctta atgatgtttt 900
 tacttaaga 909

<210> 23
 <211> 516
 <212> DNA
 <213> Homo sapiens

<400> 23
 aagcttacat tgtgaattat ggtaaaaggg ttagcacaga caatgatttt cttattttctt 60
 ccccttattc aatctctctt tttctctaaa aatatctcta cctcaagaag aataaaaaaac 120
 aaattcatag taataatcct tcttggcagg caacttatta ccaaaattaa ggactttact 180
 ttctatgtcc atctcactta cagaaactga atgaaagcag tagctcatca gaaggtagca 240
 ctgtggacat cggcgcacct gtagaagaac agcccgtagt ggaacctgaa gaaactcttg 300

```

aaccggaagc ttgtttcact gaaggtaaag aaaagaatcc taatgttaat ctttcatttg 360
gagtgcagct tatttagctg ttgttcagct aanataaatc acatataata aaatngcact 420
ttgtaataga tataattcaa tcacctctaa tatnttgaca gacaaaaaaa cttaaagtct 480
agtgtcatgc tttgattata tctgcccaat atntgg 516

```

```

<210> 24
<211> 640
<212> DNA
<213> Homo sapiens

```

```

<400> 24
ccattttaa atgtggctgaat gtttccacaa cttcacacag ctgatgaatg tgctcttact 60
actctaggct tagagagcta tgctagcaag acagagatga gcatagtaat aaaaagacaa 120
gacaaggaca ttgctaagg atattatgga agcagagaca ctttatctac ttttatttca 180
acactttctg caggctgtgt acaaagattc aagtgttgtc aaatcaatgt ggaagaaggc 240
agaggaaaac aatgggtggaa cctgagaagg acgtgtttcc gaatagttga acataactgg 300
tttgagacct tcattgtttt catgattctc cttagtagtg gtgctctggt gagtgagatt 360
aagaaaaggt gatacagcac taatttttag aacactctaa tactgatgac ttattaatcc 420
tttgtttcat tgtcttagta tccaatgcat ttttaattat cccaccttgt atcttctata 480
gatttactct ataactctat atttctggat taacttttac tatgtatgta aatataattt 540
taagaagcta atcattaatt tttgcttact attaaatagc ccagaaagtg tagcccttca 600
gcttattcat taacaccaa ggatgtgaat attcaattac 640

```

```

<210> 25
<211> 607
<212> DNA
<213> Homo sapiens

```

```

<400> 25
ccacatcagg atacaacatc aagaactatt tcctgactaa gtcaaattaa ttcattggaa 60
tcatactttt ctttttcttc caccaatagt ctttcccctg attaaataag taaaagacct 120
ttgcgaggaa aaaaaaaaaa taacagtaac tactgtttct ctgccctcct attccaatga 180
aatgtcatat gcatatgatt aattttttaa atagcttatg gagtataatt atttttgaaa 240
gctaataatg tgtaacattt tctttatagg catttgaaga tatatatatt gaycagcgaa 300
agacgattaa gacgatgttg gaatatgctg acaaggtttt cacttacatt ttcattctgg 360
aaatgcttct aaaatgggtg gcataatggc atcaaacata tttcaccaat gcctggagtt 420
ggctggactt cttaattgtt gatgtaggta tcgttcatat ttttgtctct gttcaaggta 480
gcttgtctta tttatattca aattctacaa tagtgagtct cagaccacta tgttatgttg 540
acagactata atarccacta aacgcatata tgcaatgaga gtgtcatttc tggaagacaa 600
gggctaa 607

```

```

<210> 26
<211> 336
<212> DNA
<213> Homo sapiens

```

```

<400> 26
aaaaattata cttgtcgtat tatatagcaa ctacacattg aatgatgatt ctgtttatta 60
attgttatta ttcygtgttg tgcaggtttc attggtcagt ttaacagcaa atgccttggg 120
ttactcagaa cttggagcct atcaatctct caggacacta agagctctga gacctctaag 180
agccttatct cgatttgaag ggatgagggt aagaaaaatg aaagaacctg aagtattgta 240
tatagccaaa attaaactaa attaaattta gaaaaaagga aaaatgtatg catgcaaaa 300
gaatggcaaa ttcttgcaaa atgctcttta ttgttt 336

```

<210> 27
 <211> 677
 <212> DNA
 <213> Homo sapiens

<400> 27
 cttggttata ttgcctatag ttgttttcct aagtgtattg cttaagaaaa aaaaatgaat 60
 ttttaagattt ttttgaacct tgcttttaca tatcctagaa taaatagcat tgatagaaaa 120
 aaagaatgga aagaccagag attactaggg gaattttttt tctttattaa cagataagaa 180
 ttctgacttt tctttttttc catttgtgta ttaggtggtt gtgaatgcc ttttaggagc 240
 aattccatcc atcatgaatg tgcttctggt ttgtcttata ttctggctaa ttttcagcat 300
 catgggcgta aatttgtttg ctggcaaatt ctaccactgt attaacacca caactggtga 360
 caggtttgac atcgaagacg tgaataatca tactgattgc ctaaaactaa tagaaagaaa 420
 tgagactgct cgatggaaaa atgtgaaagt aaactttgat aatgtaggat ttgggtatct 480
 ctctttgctt caagttgtaa gtgaacacta ttttctctga atatttttat tgtttggaat 540
 aataacaaaa taatgacata catctattat ttagttccta agaaaaagta tataatttctt 600
 tctattttaa aaatttcaat ttgttagtac aagtttatga gccagatgg gtgaaaactt 660
 tattacatgt aaggact 677

<210> 28
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 28
 aatggccatt ttgttcaata tgtgttctag aaatgaaaag ccatactaaa atactgtctt 60
 ggtccaaaat ctgtgtaaaa tttgttttga aatgtctttc aaaaatattc ctttttgaaa 120
 attatatcag taagaatatt tattaacat caggtctaaa ttatttttac tccaaagtaa 180
 aacatgcatg tccttcttaa taggccacat tcaaaggatg gatggatata atgtatgcag 240
 cagttgattc cagaaatgta agtattcctt gtattctaag tctttttaca atattgatca 300
 ggtggtaaaa ttaatcgaat aaagcataaa cgaccaaagt aaatgattct atcttgattt 360
 aaaaatatttg ggaaaaagtg tgacaggtaa atattcaagc atagcaatgt ttatcagaaa 420
 gatcttacta agataattca acacatgaat tattttg 457

<210> 29
 <211> 379
 <212> DNA
 <213> Homo sapiens

<400> 29
 cagaaaaaaa aaaaatgctg acatattagt aagaataatt ttntctattg ttatgaaaaa 60
 gcaccagtga cgatttccag cactaaaatg tatggtaata ttttacaaaa tattcccctt 120
 tggtaggtgg aactccagcc taagtatgaa gaaagtctgt acatgtatct ttactttggt 180
 attttcatca tctttgggtc cttcttcacc ttgaacctgt ttattggtgt catcatagat 240
 aatttcaacc agcagaaaaa gaagataagt atttctaata ttttctctcc cactgagata 300
 gaaaaattat tccttgaggt gttttctctg ccaaatgagt acttgaattt agaacaaatg 360
 ggagtatata ttataactg 379

<210> 30
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 30
gtcattttga attatttagg gaattaaaat attatcatatc ctaaagagta caattttttt 60
tacattttta atcccagata taattatact aatcagttga attttgtatt tcttttttta 120
gccatccatt ttctatttta acattgaaaa aaatgtacaa aaggacacag ttttaaccag 180
tttgattttt cttttctata ctttgagggt caagacatct ttatgacaga agaacagaag 240
aaatactata atgcaatgaa aaaattagga tcgaaaaaac cgcaaaaagcc tatacctcga 300
ccaggagtaa gaagtatcaa atgatatggg ggaaaataca aaaacaaaaa ctgcatgctt 360
gtctcacaaa aaagaaaagt aagctaaaca ttt 393

<210> 31
<211> 539
<212> DNA
<213> Homo sapiens

<400> 31
ttttaacaat taattatgct ataaattcat tcttacaaaa atcatttggga atgactactt 60
tgcaagaaac tagaaagtca attaatgcag aaagtactta atgctaatgc acatgagaaa 120
aactcctttg ttgttaaaag cttttctatt tctctacaga acaaatttca aggaatgggtc 180
tttgacttcg taaccagaca agtttttgac ataagcatca tgattctcat ctgtcttaac 240
atggtcacaa tgatgggtgga aacagatgac cagagtgaat atgtgactac cattttgtca 300
cgcatcaatc tgggtgttcat tgtgctatct actggagagt gtgtactgaa actcatctct 360
ctacgccatt attattttac cattggatgg aatatttttg attttgtggg tgtcattctc 420
tccattgtag gtaagaaata tttaaagttc ttaaattcag ttaaataaaa gtgaaagctg 480
aaacaatcaa gattagattc aagatcatcc cagcaatcag agataatcac tgtaaatat 539

<210> 32
<211> 3403
<212> DNA
<213> Homo sapiens

<400> 32
agtatatatt atatatagtt gtcatattta atataactgg gttcaggact ctgaacctta 60
ccttgagact ttagaagaaa catatgttta ttttaacgca tgatttcttc actgggtggg 120
attctcattg tttattcata ggtatgtttc ttgccgagct gatagaaaag tatttcgtgt 180
cccctacctt gttccgagtg atccgtcttg ctaggattgg ccgaatccta cgtctgatca 240
aaggagcaaa ggggatccgc acgctgctct ttgctttgat gatgtccctt cctgcgttgt 300
ttaacatcgg cctcctactc ttcctagtca tgttcatcta cgccatcttt gggatgtcca 360
actttgccta tgtaagagg gaagtggga tcgatgacat gttcaacttt gagaccttg 420
gcaacagcat gatctgccta ttccaaatta caacctctgc tggctgggat ggattgctag 480
caccattct caacagtaag ccacccgact gtgacctta taaagttaac cctggaagct 540
cagttaaggg agactgtggg aacctatctg ttggaatttt cttttttgtc agttacatca 600
tcatatcctt cctggttgtg gtgaacatgt acatcgcggt catcctggag aacttcagt 660
ttgctactga agaaagtga gagcctctga gtgaggatga ctttgagatg ttctatgagg 720
tttgggagaa gtttgatccc gatgcaactc agttcatgga atttgaaaaa ttatctcagt 780
ttgcagtgcg cttgaaccgc ctctcaatct gccacaacca aacaaactcc agctcattgc 840
catggatttg cccatgggta gtggtgaccg gatccactgt cttgatattt tatttgcttt 900
tacaattcgg gttctaggag agagtggaga gatggatgct ctacgaatac agatggaaga 960
gcgattcatg gcttccaatc cttccaaggt ctctatcag ccaatcacta ctactttaaa 1020
acgaaaacaa gaggaagtat ctgctgtcat tattcagcgt gcttacagac gccacctttt 1080
aaagcgaact gtaaaacaag cttcctttac gtacaataaa aacaaaatca aagggtggggc 1140
taatcttctt ataaaagaag acatgataat tgacagaata aatgaaaact ctattacaga 1200
aaaaactgat ctgacctgt ccactgcagc ttgtccacct tcctatgacc gggtgacaaa 1260
gccaatgtg gaaaaacatg agcaagaagg caaagatgaa aaagccaaag ggaaataaat 1320
gaaaataaat aaaaataatt gggtgacaaa ttgtttacag cctgtgaagg tgatgtattt 1380
ttatcaacag gactccttta ggaggtcaat gccaaactga ctgtttttac acaaatctcc 1440

ttaaggtcag	tgctacaat	aagacagtga	ccccctgtca	gcaaactgtg	actctgtgta	1500
aaggggagat	gaccttgaca	ggaggttact	gttctcacta	ccagctgaca	ctgctgaaga	1560
taagatgcac	aatggctagt	cagactgtag	ggaccagttt	caaggggtgc	aaacctgtga	1620
ttttggggtt	gtttaacatg	aaacacttta	gtgtagtaat	tgtatccact	gtttgcattt	1680
caactgccac	atttgtcaca	tttttatgga	atctgttagt	ggattcatct	ttttgttaat	1740
ccatgtgttt	atttatgtgt	actatTTTTg	taaacgaagt	ttctgttgag	aaataggcta	1800
aggacctcta	taacaggtat	gccacctggg	gggtatggca	accacatggc	cctcccagct	1860
acacaaagtc	gtggtttgca	tgagggcatg	ctgcacttag	agatcatgca	tgagaaaaag	1920
tcacaagaaa	aacaaattct	taaatttcac	catatttctg	ggaggggtaa	ttgggtgata	1980
agtggaggtg	ctttgttgat	cttgttttgc	gaaatccagc	ccctagacca	agtagattat	2040
ttgtgggtag	gccagtaaat	cttagcaggt	gcaaacttca	ttcaaagtgt	tggagtcata	2100
aatgttatgt	ttctttttgt	tgtattaaaa	aaaaaacctg	aatagtgaat	attgcccctc	2160
accctccacc	gccagaagac	tgaattgacc	aaaattactc	tttataaatt	tctgcttttt	2220
cctgcacttt	gttttagccat	cttcggctct	cagcaagggt	gacactgtat	atgttaatga	2280
aatgctattt	attatgtaaa	tagtcatttt	accctgtggt	gcacgtttga	gcaaacaaat	2340
aatgacctaa	gcacagttat	tattgcatca	aatatgtacc	acaagaaatg	tagagtgcaa	2400
gctttacaca	ggtaataaaa	tgtattctgt	accatttata	gatagtttgg	atgctatcaa	2460
tgcatgttta	tattaccatg	ctgctgtatc	tggtttctct	cactgctcag	aatctcattt	2520
atgagaaacc	atatgtcagt	ggtaaagtca	aggaaattgt	tcaacagatc	tcattttatt	2580
aagtcattaa	gcaatagtgt	gcagcacttt	aacagctttt	tggttatttt	tacattttta	2640
gtggataaca	tatggtatat	agccagactg	tacagacatg	tttaaaaaaa	cacactgctt	2700
aacctattaa	atatgtgttt	agaattttat	aagcaaatat	aaatactgta	aaaagtcaact	2760
ttatttttatt	tttcagcatt	atgtacataa	atatgaagag	gaaattatct	tcaggttgat	2820
atcacaaatca	cttttcttac	tttctgtcca	tagtactttt	tcatgaaaga	aatttgctaa	2880
ataagacatg	aaaacaagac	tgggtagattg	tagatttctg	cttttttaaat	tacatttgct	2940
aatttttagat	tatttcacaa	ttttaaggag	caaaataggt	tcacgattca	tatccaaatt	3000
atgcttttgca	attggaaaag	ggttttaaaat	tttattttata	tttctggtag	tacctgcact	3060
aactgaattg	aaggtagtgc	ttatgtttat	tttgttcttt	ttttctgact	tcggtttatg	3120
ttttcatttc	tttgaggtaa	tgctgctcta	gattgttcta	aatagaatgt	gggcttcata	3180
attttttttt	ccacaaaaac	agagtagtca	acttatatag	tcaattacat	caggacattt	3240
tgtgtttctt	acagaagcaa	accataggct	cctcttttcc	ttaaaactac	ttagataaac	3300
tgtattcgtg	aactgcatgc	tggaaaatgc	tactattatg	ctaaataatg	ctaaccaaca	3360
tttaaaatgt	gcaaaaactaa	taaagattac	atttttttatt	tta		3403

<210> 33
 <211> 8349
 <212> DNA
 <213> Homo sapiens

<400> 33						
ttcttgggtgc	cagcttatca	atcccaaact	ctgggtgtaa	aagattctac	agggcacttt	60
cttatgcaag	gagctaaaca	gtgattaaag	gagcaggatg	aaaagatggc	acagtcagtg	120
ctggtaccgc	caggacctga	cagcttccgc	ttctttacca	gggaatccct	tgctgctatt	180
gaacaacgca	ttgcagaaga	gaaagctaag	agacccaaac	aggaacgcaa	ggatgaggat	240
gatgaaaatg	gcccaaagcc	aaacagtgac	ttggaagcag	gaaaatctct	tccattttatt	300
tatggagaca	ttcctccaga	gatggtgtca	gtgcccctgg	aggatctgga	cccctactat	360
atcaataaga	aaacgtttat	agtattgaat	aaagggaaag	caatctctcg	attcagtgcc	420
accctgccc	tttacatttt	aactcccttc	aacctatta	gaaaattagc	tattaagatt	480
ttggtacatt	ctttattcaa	tatgctcatt	atgtgcacga	ttcttaccaa	ctgtgtattt	540
atgaccatga	gtaaccctcc	agactggaca	aagaatgtgg	agtatacctt	tacaggaatt	600
tatacttttg	aatcacttat	taaaataactt	gcaaggggct	tttgtttaga	agatttcaca	660
tttttacggg	atccatggaa	ttggttggat	ttcacagtca	ttacttttgc	atatgtgaca	720
gagtttgtgg	acctgggcaa	tgtctcagcg	ttgagaacat	tcagagttct	ccgagcattg	780
aaaacaattt	cagtcattcc	aggcctgaag	accattgtgg	gggccctgat	ccagtcagtg	840
aagaagcttt	ctgatgtcat	gatcttgact	gtgttctgtc	taagcgtgtt	tgcgctaata	900
ggattgcagt	tgttcatggg	caacctacga	aataaatgtt	tgcaatggcc	tccagataat	960

tcttcctttg	aaataaatat	cacttccttc	tttaacaatt	cattggatgg	gaatgggtact	1020
acttttcaata	ggacagtggag	catattttaac	tgggatgaat	atattgagga	taaaagtcac	1080
ttttatTTTT	tagaggggca	aatgatgct	ctgctttgtg	gcaacagctc	agatgcaggc	1140
cagtgtcctg	aaggatacat	ctgtgtgaag	gctggtagaa	accccaacta	tggctacacg	1200
agctttgaca	cctttagttg	ggcctttttg	tccttatttc	gtctcatgac	tcaagacttc	1260
tgggaaaacc	tttatcaact	gacactacgt	gctgctggga	aaacgtacat	gatatttttt	1320
gtgctgggtca	ttttcttggg	ctcattctat	ctaataaatt	tgatcttggc	tgtgggtggc	1380
atggcctatg	aggaacagaa	tcaggccaca	ttggaagagg	ctgaacagaa	ggaagctgaa	1440
tttcagcaga	tgctcgaaca	gttgaaaaag	caacaagaag	aagctcaggc	ggcagctgca	1500
gccgcatctg	ctgaatcaag	agacttcagt	ggtgctgggt	ggataggagt	tttttcagag	1560
agttcttcag	tagcatctaa	gttgagctcc	aaaagtgaag	aagagctgaa	aaacagaaga	1620
aagaaaaaga	aacagaaaga	acagtctgga	gaagaagaga	aaaatgacag	agtcctaaaa	1680
tcggaatctg	aagacagcat	aagaagaaaa	ggtttccgtt	tttccttggg	aggaagtagg	1740
ctgacatatg	aaaagagatt	ttcttctcca	caccagtcct	tactgagcat	ccgtggctcc	1800
cttttctctc	caagacgcaa	cagtagggcg	agccttttca	gcttcagagg	tcgagcaaaag	1860
gacattggct	ctgagaatga	ctttgctgat	gatgagcaca	gcacctttga	ggacaatgac	1920
agccgaagag	actctctggt	cgtgccgcac	agacatggag	aacggcgcca	cagcaatgtc	1980
agccaggcca	gccgtgcctc	caggggtgctc	cccctcctgc	ccatgaatgg	gaagatgcat	2040
agcgtctgtg	actgcaatgg	tgtggtctcc	ctggctgggg	gcccttctac	cctcacatct	2100
gctgggcagc	tcctaccaga	gggcacaact	actgaaacag	aaataagaaa	gagacggtcc	2160
agttcttctc	atgtttccat	ggattttattg	gaagatccta	catcaaggca	aagagcaatg	2220
agtatagcca	gtattttgac	caacaccatg	gaagaacttg	aagaatccag	acagaaatgc	2280
ccaccatgct	ggtataaatt	tgctaatatg	tgtttgattt	gggactgttg	taaaccatgg	2340
ttaaaggtga	aacaccttgt	caacctgggt	gtaatggacc	catttggtga	cctggccatc	2400
accatctgca	ttgtcttaaa	tacactcttc	atggctatgg	agcactatcc	catgacggag	2460
cagttcagca	gtgtactgtc	tgttggaaac	ctggtcttca	cagggatctt	cacagcagaa	2520
atgtttctca	agataattgc	catggatcca	tattattact	ttcaagaagg	ctggaatatt	2580
tttgatgggt	ttattgtgag	ccttagttta	atggaacttg	gtttggcaaa	tgtggaagga	2640
ttgtcagttc	tcogatcatt	ccggctgctc	cgagttttca	agttggcaaa	atcttggcca	2700
actctaaata	tgctaattaa	gatcattggc	aattctgttg	gggctctagg	aaacctcacc	2760
ttggtattgg	ccatcatcgt	cttcattttt	gctgtggtcg	gcatgcagct	ctttggttaag	2820
agctacaaaag	aatgtgtctg	caagatttcc	aatgattgtg	aactccacag	ctggcacatg	2880
catgactttt	tcactcctt	cctgatcgtg	ttccgcgtgc	tgtgtggaga	gtggatagag	2940
accatgtggg	actgtatgga	ggtcgtctgg	caaaccatgt	gccttactgt	cttcatgatg	3000
gtcatgggtga	ttggaaatct	agtggttctg	aacctcttct	tggccttgct	tttgagttcc	3060
ttcagttctg	acaatcttgc	tgccactgat	gatgataacg	aatgaataa	tctccagatt	3120
gctgtgggaa	ggatgcagaa	aggaatcgat	tttgttaaaa	gaaaaatacg	tgaattttatt	3180
cagaaagcct	ttgttaggaa	gcagaaagct	ttagatgaaa	ttaaaccgct	tgaagatcta	3240
aataataaaa	aagacagctg	tatttccaac	cataccacca	tagaaatagg	caaagacctc	3300
aattatctca	aagacggaaa	tggaactact	agtggcatag	gcagcagtg	agaaaaatat	3360
gtcgtggatg	aaagtgatta	catgtcattt	ataaacaacc	ctagcctcac	tgtgacagta	3420
ccaattgctg	ttggagaatc	tgactttgaa	aatttaaata	ctgaagaatt	cagcagcgag	3480
tcagatatgg	aggaaagcaa	agagaagcta	aatgcaacta	gttcatctga	aggcagcacg	3540
gttgatattg	gagctccgcg	cgagggagaa	cagcctgagg	ttgaacctga	ggaatccctt	3600
gaacctgaag	cctgttttac	agaagactgt	gtacgggaag	tcaagtgttg	tcagataagc	3660
atagaagaag	gcaaagggaa	actctgggtg	aatttgagga	aaacatgcta	taagatagtg	3720
gagcacaatt	ggttcgaaac	cttcattgtc	ttcatgattc	tgctgagcag	tggggctctg	3780
gcctttgaag	atatatacat	tgagcagcga	aaaaccatta	agaccatgtt	agaatatgct	3840
gacaaggttt	tcactttcat	attcattctg	gaaatgctgc	taaagtgggt	tgcatatggg	3900
tttcaagtgt	attttaccaa	tgctgtgtgc	tggctagact	tcctgattgt	tgatgtctca	3960
ctggttagct	taactgcaaa	tgcttgggtg	tactcagaac	ttggtgccat	caaatccctc	4020
agaacactaa	gagctctgag	gccactgaga	gctttgtccc	ggtttgaagg	aatgagggct	4080
gttgtaaatg	ctcttttagg	agccattcca	tctatcatga	atgtacttct	ggtttgtctg	4140
atcttttggc	taatattcag	tatcatggga	gtgaatctct	ttgctggcaa	gttttaccat	4200
tgtattaatt	acaccactgg	agagatgttt	gatgtaagcg	tggtcaacaa	ctacagtgag	4260
tgcaaagctc	tcattgagag	caatcaaact	gccaggtgga	aaaatgtgaa	agtaaacttt	4320
gataacgtag	gacttgata	tctgtctcta	cttcaagtag	ccacgtttta	gggatggatg	4380

gatattatgt	atgcagctgt	tgattcacga	aatgtagaat	tacaacccaa	gtatgaagac	4440
aacctgtaca	tgtatcttta	ttttgtcatc	tttattat	ttgggttcatt	ctttaccttg	4500
aatcttttca	ttgggtgtcat	catagataac	ttcaaccaac	agaaaaagaa	gtttggaggt	4560
caagacattt	ttatgacaga	agaacagaag	aaatactaca	atgcaatgaa	aaaactgggt	4620
tcaaagaaac	cacaaaaaac	catacctcga	cctgctaaca	aattccaagg	aatgggtctt	4680
gattttgtaa	ccaaacaagt	ctttgatatc	agcatcatga	tcctcatctg	ccttaacatg	4740
gtcaccatga	tggtggaaac	cgatgaccag	agtcaagaaa	tgacaaacat	tctgtactgg	4800
attaatctgg	tgttttattgt	tctgttcact	ggagaatgtg	tgctgaaact	gatctctctt	4860
cgttactact	atttcactat	tggtatggaat	atttttgatt	ttgtgggtgg	cattctctcc	4920
attgtaggaa	tgtttctggc	tgaactgata	gaaaagtatt	ttgtgtcccc	taccctgttc	4980
cgagtgatcc	gtcttgccag	gattggccga	atcctacgtc	tgatcaaagg	agcaaagggg	5040
atccgcacgc	tgctctttgc	tttgatgatg	tcccttcctg	cgttgtttaa	catcggcctc	5100
cttcttttcc	tggtcatggt	catctacgcc	atctttggga	tgtccaattt	tgcttatgtt	5160
aagaggggaag	ttgggatcga	tgacatgttc	aactttgaga	cctttggcaa	cagcatgata	5220
tgctgtttcc	aaattacaac	ctctgctggc	tggtatggat	tgctagcacc	tattcttaat	5280
agtggacctc	cagactgtga	ccctgacaaa	gatcaccttg	gaagctcagt	taaaggagac	5340
tggtgggaacc	catctgttgg	gattttcttt	tttgtcagtt	acatcatcat	atccttcctg	5400
gttgtgtgga	acatgtacat	cgcggtcatc	ctggagaact	tcagtgttgc	tactgaagaa	5460
agtgcagagc	ctctgagtga	ggatgacttt	gagatgttct	atgaggtttg	ggagaagttt	5520
gatcccgatg	cgacctcagt	tatagagttt	gccaaacttt	ctgattttgc	agatgccctg	5580
gatcctcttc	ttctcatagc	aaaacccaac	aaagtccagc	tcattgccat	ggatctgccc	5640
atggtgagtg	gtgaccggat	ccactgtctt	gacatcttat	ttgcttttac	aaagcgtgtt	5700
ttgggtgaga	gtggagagat	ggatgccctt	cgaatacaga	tggaagagcg	attcatggca	5760
tcaaaccctc	ccaaagtctc	ttatgagccc	attacgacca	cgttgaaacg	caaacaagag	5820
gaggtgtctg	ctattattat	ccagagggct	tacagacgct	acctcttgaa	gcaaaaagtt	5880
aaaaaggtat	caagtatata	caagaaagac	aaaggcaaa	aatgtgatgg	aacacccttc	5940
aaagaagata	ctctcattga	taaactgaat	gagaattcaa	ctccagagaa	aaccgatatg	6000
acgccttcca	ccacgtctcc	accctcgtat	gatagtgtga	ccaaaccaga	aaaagaaaaa	6060
tttgaaaaag	acaaatcaga	aaaggaagac	aaagggaaag	atatcagggg	aagtaaaaaa	6120
taaaaagaaa	ccaagaattt	tccattttgt	gatcaattgt	ttacagcccg	tgatgggtgat	6180
gtgtttgtgt	caacaggact	cccacaggag	gtctatgcc	aactgactgt	ttttacaaat	6240
gtatacttaa	ggtcagtggc	tataacaaga	cagagacctc	tggtcagcaa	actggaactc	6300
agtaaaactg	agaaatagta	tcgatgggag	gtttctat	tcacaaccag	ctgacactgc	6360
tgaaagcgag	aggcgtaatg	gctactcaga	cgataggaac	caattttaa	gggggagggg	6420
agttaaattt	ttatgtaaat	tcaacatgtg	acacttgata	atagtaattg	tcaccagtgt	6480
ttatgtttta	actgccacac	ctgccatatt	tttacaaaac	gtgtgctgtg	aattttatcac	6540
ttttcttttt	aattcacagg	ttgtttacta	ttatatgtga	ctatttttgt	aaatgggttt	6600
gtgtttgggg	agagggatta	aagggaggga	attctacatt	tctctattgt	attgtataac	6660
tgatatatatt	ttaaatggag	gcatgctgca	attctcattc	acacataaaa	aaatcacatc	6720
acaaaaggga	agagtttact	tcttgtttca	ggatgttttt	agatttttga	ggtgcttaaa	6780
tagctattcg	tatttttaag	gtgtctcatc	cagaaaaaat	ttaatgtgcc	tgtaaatgtt	6840
ccatagaatc	acaagcatta	aagagtgtgt	ttatttttac	ataaccatt	aaatgtacat	6900
gtatatatgt	atatatgtat	atgtgcgtgt	atatacatat	atatgtatac	acacatgcac	6960
acacagagat	atacacatac	cattacattg	tcattcacag	tcccagcagc	atgactatca	7020
cattttttgat	aagtgtcctt	tggcataaaa	taaaaatatc	ctatcagtc	tttctaagaa	7080
gcctgaattg	acaaaaaac	atccccacca	ccactttata	aagttgattc	tgctttatcc	7140
tgagttattg	tttagccatc	ttctgctctt	ggtaaaggtg	acatagtata	tgtcaattta	7200
aaaaataaaa	gtctgtcttg	taaatagtaa	ttttaccag	tggtgcatgt	ttgagcaaac	7260
aaaaatgatg	atttaagcac	actacttatt	gcatcaaata	tgtaccacag	taagtatagt	7320
ttgcaagctt	tcaacaggta	atatgatgta	attggttcca	ttatagtgtg	aagctgtcac	7380
tgctgcatgt	ttatcttgcc	tatgctgctg	tatcttattc	cttccactgt	tcagaagtct	7440
aatatgggaa	gccatatatc	agtggtaaag	tgaagcaaat	tgcttctacca	agacctcatt	7500
cttcatgtca	ttaagcaata	ggttgacgca	aacaagggaag	agcttcttgc	tttttattct	7560
tccaacctta	attgaacact	caatgatgaa	aagcccagact	gtacaaacat	gttgcaagct	7620
gcttaaatct	gtttaaaata	tatgggttaga	gttttctaag	aaaatatata	tactgtaaaa	7680
agttcatttt	attttatatt	tcagcctttt	gtacgtaaaa	tgagaaatta	aaagtatctt	7740
caggtggatg	tcacagtcac	tattgttagt	ttctgttctt	agcactttta	aattgaagca	7800

cttcacaaaa	taagaagcaa	ggactaggat	gcagtgtagg	tttctgcttt	tttattagta	7860
ctgtaaaactt	gcacacattt	caatgtgaaa	caaatctcaa	actgagttca	atgtttattt	7920
gcttttcaata	gtaatgcctt	atcattgaaa	gaggcttaaa	gaaaaaaaaa	atcagctgat	7980
actcttggca	ttgcttgaat	ccaatgtttc	cacctagtct	ttttattcag	taatcatcag	8040
tctttttccaa	tgtttgttta	cacagataga	tcttattgac	ccatatggca	ctagaactgt	8100
atcagatata	atatgggatc	ccagcttttt	ttcctctccc	acaaaaccag	gtagtgaagt	8160
tatattacca	gttacagcaa	aatactttgt	gtttcacaa	caacaataaa	tgtagattct	8220
ttatactgaa	gctattgact	tgtagtgtgt	tggtgaatgc	atgcaggaag	atgctgttac	8280
cataaagaac	ggtaaaccac	attacaatca	agccaaagaa	taaaggttcg	cttatgtata	8340
tgtattttaa						8349

<210> 34
 <211> 8349
 <212> DNA
 <213> Homo sapiens

<400> 34						
ttcttgggtgc	cagcttatca	atcccaaact	ctgggtgtaa	aagattctac	agggcacttt	60
cttatgcaag	gagctaaaca	gtgattaaag	gagcaggatg	aaaagatggc	acagtcagt	120
ctggtaccgc	caggacctga	cagcttccgc	ttctttacca	gggaatccct	tgctgctatt	180
gaacaacgca	ttgcagaaga	gaaagctaag	agacccaaac	aggaacgcaa	ggatgaggat	240
gatgaaaatg	gcccaaagcc	aaacagtgac	ttggaagcag	gaaaatctct	tccatttatt	300
tatggagaca	ttcctccaga	gatggtgtca	gtgcccctgg	aggatctgga	cccctactat	360
atcaataaga	aaacgtttat	agtattgaat	aaagggaaag	caatctctcg	attcagtgcc	420
accctgccc	tttacatttt	aactcccttc	aaccctatta	gaaaattagc	tattaagatt	480
ttggtacatt	ctttattcaa	tatgctcatt	atgtgcacga	ttcttaccac	ctgtgtattt	540
atgaccatga	gtaaccctcc	agactggaca	aagaatgtgg	agtatacctt	tacaggaatt	600
tatacttttg	aatcacttat	taaaataactt	gcaaggggct	tttgtttaga	agatttcaca	660
tttttacggg	atccatggaa	ttggttggat	ttcacagtca	ttacttttgc	atatgtgaca	720
gagtttgttg	acctgggcaa	tgtctcagcg	ttgagaacat	tcagagttct	ccgagcattg	780
aaaacaattt	cagtcattcc	aggcctgaag	accattgtgg	gggccctgat	ccagtcagt	840
aagaagcttt	ctgatgtcat	gatcttgact	gtgttctgtc	taagcgtgtt	tgcgctaata	900
ggattgcagt	tgttcatggg	caacctacga	aataaatgtt	tgcaatggcc	tccagataat	960
tcttcccttg	aaataaatat	cacttccttc	tttaacaatt	cattggatgg	gaatgggtact	1020
actttcaata	ggacagtga	catatttaac	tgggatgaat	atattgagga	taaaagtcac	1080
ttttattttt	tagaggggca	aatgatgct	ctgctttgtg	gcaacagctc	agatgcaggc	1140
cagtgtcctg	aaggatacat	ctgtgtgaag	gctggtagaa	accccaacta	tggtacacg	1200
agctttgaca	cctttagttg	ggcctttttg	tccttatttc	gtctcatgac	tcaagacttc	1260
tgggaaaacc	tttatcaact	gacactacgt	gctgctggga	aaacgtacat	gatatttttt	1320
gtgctggtca	ttttcttggg	ctcattctat	ctaataaatt	tgatcttggc	tgtggtggcc	1380
atggcctatg	aggaacagaa	tcaggccaca	ttggaagagg	ctgaacagaa	ggaagctgaa	1440
tttcagcaga	tgctcgaaca	gttgaaaaag	caacaagaag	aagctcaggc	ggcagctgca	1500
gccgcactctg	ctgaatcaag	agacttcagt	ggtgctggtg	ggataggagt	tttttcagag	1560
agttcttcag	tagcatctaa	gttgagctcc	aaaagtgaag	aagagctgaa	aaacagaaga	1620
aagaaaaaga	aacagaaaga	acagtctgga	gaagaagaga	aaaatgacag	agtcctaaaa	1680
tcggaatctg	aagacagcat	aagaagaaaa	ggtttccggt	tttccttgga	aggaagtagg	1740
ctgacatatg	aaaagagatt	ttcttctcca	caccagtcct	tactgagcat	ccgtggctcc	1800
cttttctctc	caagacgcaa	cagtagggcg	agccttttca	gcttcagagg	tcgagcaaag	1860
gacattggct	ctgagaatga	ctttgctgat	gatgagcaca	gcaccttga	ggacaatgac	1920
agccgaagag	actctctgtt	cgtgccgcac	agacatggag	aacggcgcca	cagcaatgtc	1980
agccaggcca	gccgtgcctc	cagggtgctc	cccctcctgc	ccatgaatgg	gaagatgcat	2040
agcgtgtgg	actgcaatgg	tgtggtctcc	ctggtcgggg	gcccttctac	cctcacatct	2100
gctgggcagc	tcctaccaga	gggcacaact	actgaaacag	aaataagaaa	gagacggtcc	2160
agttcttatc	atgtttccat	ggattttattg	gaagatccta	catcaaggca	aagagcaatg	2220
agtatagcca	gtattttgac	caacaccatg	gaagaacttg	aagaatccag	acagaaatgc	2280
ccaccatgct	ggtataaatt	tgctaataatg	tgtttgattt	gggactgttg	taaaccatgg	2340

ttaaaggtga	aacaccttgt	caacctgggt	gtaatggacc	catttggtga	cctggccatc	2400
accatctgca	ttgtcttaaa	tacactcttc	atggctatgg	agcactatcc	catgacggag	2460
cagttcagca	gtgtactgtc	tgttggaac	ctggcttca	cagggatctt	cacagcagaa	2520
atgtttctca	agataattgc	catggatcca	tattattact	ttcaagaagg	ctggaatatt	2580
tttgatgggt	ttattgtgag	ccttagttta	atggaacttg	gtttggcaaa	tgtggaagga	2640
ttgtcagttc	tccgatcatt	cggctgctc	cgagttttca	agttggcaaa	atcttgcca	2700
actctaaata	tgctaattaa	gatcattggc	aattctgtgg	gggctctagg	aaacctcacc	2760
ttgggtattgg	ccatcatcgt	cttcattttt	gctgtggctg	gcatgcagct	ctttggtaag	2820
agctacaaaag	aatgtgtctg	caagatttcc	aatgattgtg	aactcccacg	ctggcacatg	2880
catgactttt	tccactcctt	cctgatcgtg	ttccgcgtgc	tgtgtggaga	gtggatagag	2940
accatgtggg	actgtatgga	ggtcgctggc	caaaccatgt	gccttactgt	cttcatgatg	3000
gtcatgggtga	ttggaaatct	agtggttctg	aacctcttct	tggccttgct	tttgagttcc	3060
ttcagttctg	acaatcttgc	tgccactgat	gatgataacg	aaatgaataa	tctccagatt	3120
gctgtgggaa	ggatgcagaa	aggaatcgat	tttgttaaaa	gaaaaatacg	tgaattttatt	3180
cagaaagcct	ttgttaggaa	gcagaaagct	ttagatgaaa	ttaaaccgct	tgaagatcta	3240
aataataaaa	aagacagctg	tatttccaac	cataccacca	tagaaatagg	caaagacctc	3300
aattatctca	aagacggaaa	tggaaactact	agtggcatag	gcagcagtgt	agaaaaatat	3360
gtcgtggatg	aaagtgatta	catgtcattt	ataaacaacc	ctagcctcac	tgtgacagta	3420
ccaattgctg	ttggagaatc	tgactttgaa	aattttaaata	ctgaagaatt	cagcagcgag	3480
tcagatatgg	aggaaagcaa	agagaagcta	aatgcaacta	gttcatctga	aggcagcacg	3540
gttgatattg	gagctcccg	cgagggagaa	cagcctgagg	ttgaacctga	ggaatccctt	3600
gaacctgaag	cctgttttac	agaagactgt	gtacggaagt	tcaagtgttg	tcagataaag	3660
atagaagaag	gcaaagggaa	actctgggtg	aatttgagga	aaacatgcta	taagatagtg	3720
gagcacaatt	ggttcgaaac	cttcattgtc	ttcatgattc	tgctgagcag	tggggctctg	3780
gcctttgaag	atatatacat	tgagcagcga	aaaaccatta	agaccatgtt	agaatatgct	3840
gacaagggtt	tcacttacat	attcattctg	gaaatgctgc	taaagtgggt	tgcatatggt	3900
tttcaagtgt	attttacca	tgccctgggtg	tggttagact	tcctgattgt	tgatgtctca	3960
ctggtagct	taactgcaaa	tgccctgggt	tactcagaac	ttggtgccat	caaatccctc	4020
agaacactaa	gagctctgag	gccactgaga	gctttgtccc	ggtttgaagg	aatgagggtc	4080
gttgtaaatg	ctcttttagg	agccattcca	tctatcatga	atgtacttct	ggtttgtctg	4140
atcttttggc	taataattcag	tatcatggga	gtgaatctct	ttgctggcaa	gttttaccat	4200
tgtattaatt	acaccattgg	agagatgttt	gatgtaagcg	tgggtcaaca	ctacagttag	4260
tgcaaagctc	tcattgagag	caatcaaact	gccaggtgga	aaaatgtgaa	agtaaacttt	4320
gataacgtag	gacttggtata	tctgtctcta	cttcaagtag	ccacgtttta	gggatggatg	4380
gatattatgt	atgcagctgt	tgattcacga	aatgtagaat	tacaacccaa	gtatgaagac	4440
aacctgtaca	tgtatcttta	ttttgtcatc	tttattattt	ttggttcatt	ctttaccttg	4500
aatcttttca	ttgggtgtcat	catagataac	ttcaaccaac	agaaaaagaa	gtttggagggt	4560
caagacattt	ttatgacaga	agaacagaag	aaatactaca	atgcaatgaa	aaaactgggt	4620
tcaaagaaac	cacaaaaacc	catacctcga	cctgctaaca	aattccaagg	aatgggtctt	4680
gattttgtaa	ccaaacaagt	ctttgatatc	agcatcatga	tcctcatctg	ccttaacatg	4740
gtcaccatga	tggtggaaac	cgatgaccag	agtcaagaaa	tgacaaacat	tctgtactgg	4800
attaatctgg	tgtttattgt	tctgttcaact	ggagaatgtg	tgctgaaact	gatctctctt	4860
cgttactact	atttcaactat	tggatggaat	atttttgatt	ttgtgggtgg	cattctctcc	4920
attgtaggaa	tgtttctggc	tgaactgata	gaaaagtatt	ttgtgtcccc	tacctgttcc	4980
cgagtgatcc	gtcttgccag	gattggccga	atcctacgtc	tgatcaaagg	agcaaagggg	5040
atccgcacgc	tgctctttgc	tttgatgatg	tccttccctg	cgttgtttta	catcggcctc	5100
cttcttttcc	tggtcatgtt	catctacgcc	atctttggga	tgtccaattt	tgccatgttt	5160
aagagggaag	ttgggtatcga	tgacatgttc	aactttgaga	cctttggcaa	cagcatgata	5220
tgccgtgttc	aaattacaac	ctctgctggc	tgggatggat	tgctagcacc	tattcttaat	5280
agtggacctc	cagactgtga	ccctgacaaa	gatcaccctg	gaagctcagt	taaaggagac	5340
tgtgggaacc	catctgttgg	gattttcttt	tttgtcagtt	acatcatcat	atccttctctg	5400
gttgtgtgga	acatgtacat	cgcggtcatc	ctggagaact	tcagtgttgc	tactgaagaa	5460
agtgcagagc	ctctgagtga	ggatgacttt	gagatgttct	atgagggtttg	ggagaagttt	5520
gatcccgatg	cgaccagtt	tatagagttt	gccaaacttt	ctgattttgc	agatgcctctg	5580
gatcctcctc	ttctcatagc	aaaaccacac	aaagtccagc	tcattgccat	ggatctgccc	5640
atgggtgagt	gtgaccggat	ccactgtcct	gacatcttat	ttgctttttac	aaagcgtgtt	5700
ttgggtgaga	gtggagagat	ggatgccctt	cgaatacaga	tggaaagagcg	attcatggca	5760

```

tcaaaccct ccaaagtctc ttatgagccc attacgacca cgttgaaacg caaacaagag 5820
gaggtgtctg ctattattat ccagagggct tacagacgct acctcttgaa gcaaaaagtt 5880
aaaaaggtat caagtatata caagaaagac aaaggcaaag aatgtgatgg aacacccatc 5940
aaagaagata ctctcattga taaactgaat gagaattcaa ctccagagaa aaccgatatg 6000
acgccttcca ccacgtctcc accctcgtat gatagtgtga ccaaaccaga aaaagaaaaa 6060
tttgaaaaag acaaatcaga aaaggaagac aaagggaag atatacaggga aagtaaaaaa 6120
taaaaagaaa ccaagaatct tccattttgt gatcaattgt ttacagcccg tgatggtgat 6180
gtgtttgtgt caacaggact cccacaggag gtctatgcca aactgactgt ttttacaaat 6240
gtatacttaa ggtcagtgcc tataacaaga cagagacctc tggtcagcaa actggaactc 6300
agtaaactgg agaaatagta tcgatgggag gtttctattt tcacaaccag ctgacactgc 6360
tgaagagcag aggcgtaatg gctactcaga cgataggaac caatttaaag gggggaggga 6420
agttaaatct ttatgtaaat tcaacatgtg acacttgata atagtaattg tcaccagtgt 6480
ttatgtttta actgccacac ctgccatatt ttacaaaaac gtgtgctgtg aatttatcac 6540
ttttcttttt aattcacagg ttgtttacta ttatatgtga ctatttttgt aaatgggttt 6600
gtgtttgggg agagggatta aaggggaggga attctacatt tctctattgt attgtataac 6660
tgatatattt ttaaattggag gcatgctgca attctcattc acacataaaa aaatcacatc 6720
acaaaaggga agagtttact tcttgtttca ggatgttttt agatttttga ggtgcttaaa 6780
tagctattcg tatttttaag gtgtctcctc cagaaaaaat ttaatgtgcc tgtaaatgtt 6840
ccatagaatc acaagcatta aagagttgtt ttatttttac ataaccctt aaatgtacat 6900
gtatatatgt atatatgtat atgtgcgtgt atatacatat atatgtatac acacatgcac 6960
acacagagat atacacatac cattacattg tcattcacag tcccagcagc atgactatca 7020
catttttgat aagtgtcctt tggcataaaa taaaaatatc ctatcagtc tttctaagaa 7080
gcctgaattg accaaaaaac atccccacca ccactttata aagttgattc tgctttatcc 7140
tgcagtattg tttagccatc ttctgctctt ggtaagggtg acatagtata tgtcaattta 7200
aaaaataaaa gtctgctttg taaatagtaa ttttaccag tgggtgcatgt ttgagcaaac 7260
aaaaatgatg atttaagcac actacttatt gcatcaaata tgtaccacag taagtatagt 7320
ttgcaagctt tcaacaggta atatgatgta attgggtcca ttatagtttg aagctgtcac 7380
tgctgcatgt ttatcttgcc tatgtctgtg tatcttattc cttccactgt tcagaagtct 7440
aatatgggaa gccatatatc agtggtaaaag tgaagcaaag tgttctacca agacctcatt 7500
cttcatgtca ttaagcaata gggtgcagca aacaagggaag agcttcttgc tttttattct 7560
tccaacctta attgaacact caatgatgaa aagcccgact gtacaaacat gttgcaagct 7620
gcttaaatct gtttaaaata tatggttaga gttttctaag aaaatataaa tactgtaaaa 7680
agttcatttt attttatttt tcagcctttt gtacgtaaaa tgagaaatta aaagtatctt 7740
caggtggatg tcacagtcac tattgttagt ttctgttctt agcactttta aattgaagca 7800
cttcacaaaa taagaagcaa ggactaggat gcagtgtagg tttctgcttt tttattagta 7860
ctgtaaactt gcacacattt caatgtgaaa caaatctcaa actgagttca atgtttattt 7920
gctttcaata gtaatgcctt atcattgaaa gaggcctaaa gaaaaaaaaa atcagctgat 7980
actcttgcca ttgcttgaat ccaatgtttc cacctagtct ttttattcag taatcatcag 8040
tcttttccaa tgtttgttta cacagataga tcttattgac ccatatggca ctagaactgt 8100
atcagatata atatgggatc ccagcttttt ttctctctcc acaaaaccag gtagtgaagt 8160
tatattacca gttacagcaa aatactttgt gtttcacaag caacaataaa tgtagattct 8220
ttatactgaa gctattgact tgtagtgtgt tgggtgaatgc atgcaggaag atgctgttac 8280
cataaagaac ggtaaaccac attacaatca agccaaagaa taaaggttcg cttatgtata 8340
tgtatttaa
8349

```

<210> 35

<211> 2005

<212> PRT

<213> Homo sapiens

<400> 35

Met Ala Gln Ser Val Leu Val Pro Pro Gly Pro Asp Ser Phe Arg Phe
1 5 10 15

Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Gln Arg Ile Ala Glu Glu
20 25 30

Lys Ala Lys Arg Pro Lys Gln Glu Arg Lys Asp Glu Asp Asp Glu Asn
 35 40 45
 Gly Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Ser Leu Pro Phe
 50 55 60
 Ile Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Val Pro Leu Glu Asp
 65 70 75 80
 Leu Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe Ile Val Leu Asn Lys
 85 90 95
 Gly Lys Ala Ile Ser Arg Phe Ser Ala Thr Pro Ala Leu Tyr Ile Leu
 100 105 110
 Thr Pro Phe Asn Pro Ile Arg Lys Leu Ala Ile Lys Ile Leu Val His
 115 120 125
 Ser Leu Phe Asn Met Leu Ile Met Cys Thr Ile Leu Thr Asn Cys Val
 130 135 140
 Phe Met Thr Met Ser Asn Pro Pro Asp Trp Thr Lys Asn Val Glu Tyr
 145 150 155 160
 Thr Phe Thr Gly Ile Tyr Thr Phe Glu Ser Leu Ile Lys Ile Leu Ala
 165 170 175
 Arg Gly Phe Cys Leu Glu Asp Phe Thr Phe Leu Arg Asp Pro Trp Asn
 180 185 190
 Trp Leu Asp Phe Thr Val Ile Thr Phe Ala Tyr Val Thr Glu Phe Val
 195 200 205
 Asp Leu Gly Asn Val Ser Ala Leu Arg Thr Phe Arg Val Leu Arg Ala
 210 215 220
 Leu Lys Thr Ile Ser Val Ile Pro Gly Leu Lys Thr Ile Val Gly Ala
 225 230 235 240
 Leu Ile Gln Ser Val Lys Lys Leu Ser Asp Val Met Ile Leu Thr Val
 245 250 255
 Phe Cys Leu Ser Val Phe Ala Leu Ile Gly Leu Gln Leu Phe Met Gly
 260 265 270
 Asn Leu Arg Asn Lys Cys Leu Gln Trp Pro Pro Asp Asn Ser Ser Phe
 275 280 285
 Glu Ile Asn Ile Thr Ser Phe Phe Asn Asn Ser Leu Asp Gly Asn Gly
 290 295 300
 Thr Thr Phe Asn Arg Thr Val Ser Ile Phe Asn Trp Asp Glu Tyr Ile
 305 310 315 320
 Glu Asp Lys Ser His Phe Tyr Phe Leu Glu Gly Gln Asn Asp Ala Leu
 325 330 335

Leu Cys Gly Asn Ser Ser Asp Ala Gly Gln Cys Pro Glu Gly Tyr Ile
 340 345 350
 Cys Val Lys Ala Gly Arg Asn Pro Asn Tyr Gly Tyr Thr Ser Phe Asp
 355 360 365
 Thr Phe Ser Trp Ala Phe Leu Ser Leu Phe Arg Leu Met Thr Gln Asp
 370 375 380
 Phe Trp Glu Asn Leu Tyr Gln Leu Thr Leu Arg Ala Ala Gly Lys Thr
 385 390 395 400
 Tyr Met Ile Phe Phe Val Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu
 405 410 415
 Ile Asn Leu Ile Leu Ala Val Val Ala Met Ala Tyr Glu Glu Gln Asn
 420 425 430
 Gln Ala Thr Leu Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln
 435 440 445
 Met Leu Glu Gln Leu Lys Lys Gln Gln Glu Glu Ala Gln Ala Ala Ala
 450 455 460
 Ala Ala Ala Ser Ala Glu Ser Arg Asp Phe Ser Gly Ala Gly Gly Ile
 465 470 475 480
 Gly Val Phe Ser Glu Ser Ser Ser Val Ala Ser Lys Leu Ser Ser Lys
 485 490 495
 Ser Glu Lys Glu Leu Lys Asn Arg Arg Lys Lys Lys Lys Gln Lys Glu
 500 505 510
 Gln Ser Gly Glu Glu Glu Lys Asn Asp Arg Val Leu Lys Ser Glu Ser
 515 520 525
 Glu Asp Ser Ile Arg Arg Lys Gly Phe Arg Phe Ser Leu Glu Gly Ser
 530 535 540
 Arg Leu Thr Tyr Glu Lys Arg Phe Ser Ser Pro His Gln Ser Leu Leu
 545 550 555 560
 Ser Ile Arg Gly Ser Leu Phe Ser Pro Arg Arg Asn Ser Arg Ala Ser
 565 570 575
 Leu Phe Ser Phe Arg Gly Arg Ala Lys Asp Ile Gly Ser Glu Asn Asp
 580 585 590
 Phe Ala Asp Asp Glu His Ser Thr Phe Glu Asp Asn Asp Ser Arg Arg
 595 600 605
 Asp Ser Leu Phe Val Pro His Arg His Gly Glu Arg Arg His Ser Asn
 610 615 620
 Val Ser Gln Ala Ser Arg Ala Ser Arg Val Leu Pro Ile Leu Pro Met
 625 630 635 640

Asn Gly Lys Met His Ser Ala Val Asp Cys Asn Gly Val Val Ser Leu
 645 650 655
 Val Gly Gly Pro Ser Thr Leu Thr Ser Ala Gly Gln Leu Leu Pro Glu
 660 665 670
 Gly Thr Thr Thr Glu Thr Glu Ile Arg Lys Arg Arg Ser Ser Ser Tyr
 675 680 685
 His Val Ser Met Asp Leu Leu Glu Asp Pro Thr Ser Arg Gln Arg Ala
 690 695 700
 Met Ser Ile Ala Ser Ile Leu Thr Asn Thr Met Glu Glu Leu Glu Glu
 705 710 715 720
 Ser Arg Gln Lys Cys Pro Pro Cys Trp Tyr Lys Phe Ala Asn Met Cys
 725 730 735
 Leu Ile Trp Asp Cys Cys Lys Pro Trp Leu Lys Val Lys His Leu Val
 740 745 750
 Asn Leu Val Val Met Asp Pro Phe Val Asp Leu Ala Ile Thr Ile Cys
 755 760 765
 Ile Val Leu Asn Thr Leu Phe Met Ala Met Glu His Tyr Pro Met Thr
 770 775 780
 Glu Gln Phe Ser Ser Val Leu Ser Val Gly Asn Leu Val Phe Thr Gly
 785 790 795 800
 Ile Phe Thr Ala Glu Met Phe Leu Lys Ile Ile Ala Met Asp Pro Tyr
 805 810 815
 Tyr Tyr Phe Gln Glu Gly Trp Asn Ile Phe Asp Gly Phe Ile Val Ser
 820 825 830
 Leu Ser Leu Met Glu Leu Gly Leu Ala Asn Val Glu Gly Leu Ser Val
 835 840 845
 Leu Arg Ser Phe Arg Leu Leu Arg Val Phe Lys Leu Ala Lys Ser Trp
 850 855 860
 Pro Thr Leu Asn Met Leu Ile Lys Ile Ile Gly Asn Ser Val Gly Ala
 865 870 875 880
 Leu Gly Asn Leu Thr Leu Val Leu Ala Ile Ile Val Phe Ile Phe Ala
 885 890 895
 Val Val Gly Met Gln Leu Phe Gly Lys Ser Tyr Lys Glu Cys Val Cys
 900 905 910
 Lys Ile Ser Asn Asp Cys Glu Leu Pro Arg Trp His Met His Asp Phe
 915 920 925
 Phe His Ser Phe Leu Ile Val Phe Arg Val Leu Cys Gly Glu Trp Ile
 930 935 940

Glu Thr Met Trp Asp Cys Met Glu Val Ala Gly Gln Thr Met Cys Leu
 945 950 955 960
 Thr Val Phe Met Met Val Met Val Ile Gly Asn Leu Val Val Leu Asn
 965 970 975
 Leu Phe Leu Ala Leu Leu Leu Ser Ser Phe Ser Ser Asp Asn Leu Ala
 980 985 990
 Ala Thr Asp Asp Asp Asn Glu Met Asn Asn Leu Gln Ile Ala Val Gly
 995 1000 1005
 Arg Met Gln Lys Gly Ile Asp Phe Val Lys Arg Lys Ile Arg Glu Phe
 1010 1015 1020
 Ile Gln Lys Ala Phe Val Arg Lys Gln Lys Ala Leu Asp Glu Ile Lys
 1025 1030 1035 1040
 Pro Leu Glu Asp Leu Asn Asn Lys Lys Asp Ser Cys Ile Ser Asn His
 1045 1050 1055
 Thr Thr Ile Glu Ile Gly Lys Asp Leu Asn Tyr Leu Lys Asp Gly Asn
 1060 1065 1070
 Gly Thr Thr Ser Gly Ile Gly Ser Ser Val Glu Lys Tyr Val Val Asp
 1075 1080 1085
 Glu Ser Asp Tyr Met Ser Phe Ile Asn Asn Pro Ser Leu Thr Val Thr
 1090 1095 1100
 Val Pro Ile Ala Val Gly Glu Ser Asp Phe Glu Asn Leu Asn Thr Glu
 1105 1110 1115 1120
 Glu Phe Ser Ser Glu Ser Asp Met Glu Glu Ser Lys Glu Lys Leu Asn
 1125 1130 1135
 Ala Thr Ser Ser Ser Glu Gly Ser Thr Val Asp Ile Gly Ala Pro Ala
 1140 1145 1150
 Glu Gly Glu Gln Pro Glu Val Glu Pro Glu Glu Ser Leu Glu Pro Glu
 1155 1160 1165
 Ala Cys Phe Thr Glu Asp Cys Val Arg Lys Phe Lys Cys Cys Gln Ile
 1170 1175 1180
 Ser Ile Glu Glu Gly Lys Gly Lys Leu Trp Trp Asn Leu Arg Lys Thr
 1185 1190 1195 1200
 Cys Tyr Lys Ile Val Glu His Asn Trp Phe Glu Thr Phe Ile Val Phe
 1205 1210 1215
 Met Ile Leu Leu Ser Ser Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile
 1220 1225 1230
 Glu Gln Arg Lys Thr Ile Lys Thr Met Leu Glu Tyr Ala Asp Lys Val
 1235 1240 1245

Phe Thr Tyr Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr
1250 1255 1260
Gly Phe Gln Val Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu
1265 1270 1275 1280
Ile Val Asp Val Ser Leu Val Ser Leu Thr Ala Asn Ala Leu Gly Tyr
1285 1290 1295
Ser Glu Leu Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu Arg
1300 1305 1310
Pro Leu Arg Ala Leu Ser Arg Phe Glu Gly Met Arg Ala Val Val Asn
1315 1320 1325
Ala Leu Leu Gly Ala Ile Pro Ser Ile Met Asn Val Leu Leu Val Cys
1330 1335 1340
Leu Ile Phe Trp Leu Ile Phe Ser Ile Met Gly Val Asn Leu Phe Ala
1345 1350 1355 1360
Gly Lys Phe Tyr His Cys Ile Asn Tyr Thr Thr Gly Glu Met Phe Asp
1365 1370 1375
Val Ser Val Val Asn Asn Tyr Ser Glu Cys Lys Ala Leu Ile Glu Ser
1380 1385 1390
Asn Gln Thr Ala Arg Trp Lys Asn Val Lys Val Asn Phe Asp Asn Val
1395 1400 1405
Gly Leu Gly Tyr Leu Ser Leu Leu Gln Val Ala Thr Phe Lys Gly Trp
1410 1415 1420
Met Asp Ile Met Tyr Ala Ala Val Asp Ser Arg Asn Val Glu Leu Gln
1425 1430 1435 1440
Pro Lys Tyr Glu Asp Asn Leu Tyr Met Tyr Leu Tyr Phe Val Ile Phe
1445 1450 1455
Ile Ile Phe Gly Ser Phe Phe Thr Leu Asn Leu Phe Ile Gly Val Ile
1460 1465 1470
Ile Asp Asn Phe Asn Gln Gln Lys Lys Lys Phe Gly Gly Gln Asp Ile
1475 1480 1485
Phe Met Thr Glu Glu Gln Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu
1490 1495 1500
Gly Ser Lys Lys Pro Gln Lys Pro Ile Pro Arg Pro Ala Asn Lys Phe
1505 1510 1515 1520
Gln Gly Met Val Phe Asp Phe Val Thr Lys Gln Val Phe Asp Ile Ser
1525 1530 1535
Ile Met Ile Leu Ile Cys Leu Asn Met Val Thr Met Met Val Glu Thr
1540 1545 1550

Asp Asp Gln Ser Gln Glu Met Thr Asn Ile Leu Tyr Trp Ile Asn Leu
 1555 1560 1565
 Val Phe Ile Val Leu Phe Thr Gly Glu Cys Val Leu Lys Leu Ile Ser
 1570 1575 1580
 Leu Arg Tyr Tyr Tyr Phe Thr Ile Gly Trp Asn Ile Phe Asp Phe Val
 1585 1590 1595 1600
 Val Val Ile Leu Ser Ile Val Gly Met Phe Leu Ala Glu Leu Ile Glu
 1605 1610 1615
 Lys Tyr Phe Val Ser Pro Thr Leu Phe Arg Val Ile Arg Leu Ala Arg
 1620 1625 1630
 Ile Gly Arg Ile Leu Arg Leu Ile Lys Gly Ala Lys Gly Ile Arg Thr
 1635 1640 1645
 Leu Leu Phe Ala Leu Met Met Ser Leu Pro Ala Leu Phe Asn Ile Gly
 1650 1655 1660
 Leu Leu Leu Phe Leu Val Met Phe Ile Tyr Ala Ile Phe Gly Met Ser
 1665 1670 1675 1680
 Asn Phe Ala Tyr Val Lys Arg Glu Val Gly Ile Asp Asp Met Phe Asn
 1685 1690 1695
 Phe Glu Thr Phe Gly Asn Ser Met Ile Cys Leu Phe Gln Ile Thr Thr
 1700 1705 1710
 Ser Ala Gly Trp Asp Gly Leu Leu Ala Pro Ile Leu Asn Ser Gly Pro
 1715 1720 1725
 Pro Asp Cys Asp Pro Asp Lys Asp His Pro Gly Ser Ser Val Lys Gly
 1730 1735 1740
 Asp Cys Gly Asn Pro Ser Val Gly Ile Phe Phe Phe Val Ser Tyr Ile
 1745 1750 1755 1760
 Ile Ile Ser Phe Leu Val Val Val Asn Met Tyr Ile Ala Val Ile Leu
 1765 1770 1775
 Glu Asn Phe Ser Val Ala Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu
 1780 1785 1790
 Asp Asp Phe Glu Met Phe Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp
 1795 1800 1805
 Ala Thr Gln Phe Ile Glu Phe Ala Lys Leu Ser Asp Phe Ala Asp Ala
 1810 1815 1820
 Leu Asp Pro Pro Leu Leu Ile Ala Lys Pro Asn Lys Val Gln Leu Ile
 1825 1830 1835 1840
 Ala Met Asp Leu Pro Met Val Ser Gly Asp Arg Ile His Cys Leu Asp
 1845 1850 1855

Ile Leu Phe Ala Phe Thr Lys Arg Val Leu Gly Glu Ser Gly Glu Met
 1860 1865 1870
 Asp Ala Leu Arg Ile Gln Met Glu Glu Arg Phe Met Ala Ser Asn Pro
 1875 1880 1885
 Ser Lys Val Ser Tyr Glu Pro Ile Thr Thr Thr Leu Lys Arg Lys Gln
 1890 1895 1900
 Glu Glu Val Ser Ala Ile Ile Ile Gln Arg Ala Tyr Arg Arg Tyr Leu
 1905 1910 1915 1920
 Leu Lys Gln Lys Val Lys Lys Val Ser Ser Ile Tyr Lys Lys Asp Lys
 1925 1930 1935
 Gly Lys Glu Cys Asp Gly Thr Pro Ile Lys Glu Asp Thr Leu Ile Asp
 1940 1945 1950
 Lys Leu Asn Glu Asn Ser Thr Pro Glu Lys Thr Asp Met Thr Pro Ser
 1955 1960 1965
 Thr Thr Ser Pro Pro Ser Tyr Asp Ser Val Thr Lys Pro Glu Lys Glu
 1970 1975 1980
 Lys Phe Glu Lys Asp Lys Ser Glu Lys Glu Asp Lys Gly Lys Asp Ile
 1985 1990 1995 2000
 Arg Glu Ser Lys Lys
 2005

<210> 36
 <211> 2005
 <212> PRT
 <213> Homo sapiens

<400> 36
 Met Ala Gln Ser Val Leu Val Pro Pro Gly Pro Asp Ser Phe Arg Phe
 1 5 10 15
 Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Gln Arg Ile Ala Glu Glu
 20 25 30
 Lys Ala Lys Arg Pro Lys Gln Glu Arg Lys Asp Glu Asp Asp Glu Asn
 35 40 45
 Gly Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Ser Leu Pro Phe
 50 55 60
 Ile Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Val Pro Leu Glu Asp
 65 70 75 80
 Leu Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe Ile Val Leu Asn Lys
 85 90 95
 Gly Lys Ala Ile Ser Arg Phe Ser Ala Thr Pro Ala Leu Tyr Ile Leu

				100				105						110			
Thr	Pro	Phe 115	Asn	Pro	Ile	Arg	Lys 120	Leu	Ala	Ile	Lys	Ile 125	Leu	Val	His		
Ser	Leu 130	Phe	Asn	Met	Leu	Ile 135	Met	Cys	Thr	Ile	Leu 140	Thr	Asn	Cys	Val		
Phe 145	Met	Thr	Met	Ser	Asn 150	Pro	Pro	Asp	Trp	Thr 155	Lys	Asn	Val	Glu	Tyr 160		
Thr	Phe	Thr	Gly	Ile 165	Tyr	Thr	Phe	Glu	Ser 170	Leu	Ile	Lys	Ile	Leu 175	Ala		
Arg	Gly	Phe	Cys 180	Leu	Glu	Asp	Phe 185	Thr	Phe	Leu	Arg	Asp 190	Pro	Trp	Asn		
Trp	Leu 195	Asp	Phe	Thr	Val	Ile 200	Thr	Phe	Ala	Tyr	Val 205	Thr	Glu	Phe	Val		
Asn 210	Leu	Gly	Asn	Val	Ser	Ala 215	Leu	Arg	Thr	Phe	Arg 220	Val	Leu	Arg	Ala		
Leu 225	Lys	Thr	Ile	Ser	Val 230	Ile	Pro	Gly	Leu	Lys 235	Thr	Ile	Val	Gly	Ala 240		
Leu	Ile	Gln	Ser	Val 245	Lys	Lys	Leu	Ser	Asp 250	Val	Met	Ile	Leu	Thr 255	Val		
Phe	Cys	Leu	Ser 260	Val	Phe	Ala	Leu 265	Ile	Gly	Leu	Gln	Leu 270	Phe	Met	Gly		
Asn	Leu 275	Arg	Asn	Lys	Cys	Leu	Gln 280	Trp	Pro	Pro	Asp 285	Asn	Ser	Ser	Phe		
Glu 290	Ile	Asn	Ile	Thr	Ser	Phe 295	Phe	Asn	Asn	Ser	Leu 300	Asp	Gly	Asn	Gly		
Thr 305	Thr	Phe	Asn	Arg	Thr 310	Val	Ser	Ile	Phe	Asn 315	Trp	Asp	Glu	Tyr	Ile 320		
Glu	Asp	Lys	Ser	His 325	Phe	Tyr	Phe	Leu	Glu 330	Gly	Gln	Asn	Asp	Ala 335	Leu		
Leu	Cys	Gly	Asn 340	Ser	Ser	Asp	Ala	Gly 345	Gln	Cys	Pro	Glu	Gly 350	Tyr	Ile		
Cys	Val	Lys	Ala	Gly	Arg	Asn 360	Pro	Asn	Tyr	Gly	Tyr 365	Thr	Ser	Phe	Asp		
Thr 370	Phe	Ser	Trp	Ala	Phe	Leu 375	Ser	Leu	Phe	Arg 380	Leu	Met	Thr	Gln	Asp		
Phe 385	Trp	Glu	Asn	Leu	Tyr 390	Gln	Leu	Thr	Leu	Arg 395	Ala	Ala	Gly	Lys	Thr 400		
Tyr	Met	Ile	Phe	Phe	Val	Leu	Val	Ile	Phe	Leu	Gly	Ser	Phe	Tyr	Leu		

405										410					415				
Ile	Asn	Leu	Ile	Leu	Ala	Val	Val	Ala	Met	Ala	Tyr	Glu	Glu	Gln	Asn				
			420					425						430					
Gln	Ala	Thr	Leu	Glu	Glu	Ala	Glu	Gln	Lys	Glu	Ala	Glu	Phe	Gln	Gln				
		435					440					445							
Met	Leu	Glu	Gln	Leu	Lys	Lys	Gln	Gln	Glu	Glu	Ala	Gln	Ala	Ala	Ala				
	450					455					460								
Ala	Ala	Ala	Ser	Ala	Glu	Ser	Arg	Asp	Phe	Ser	Gly	Ala	Gly	Gly	Ile				
465					470					475					480				
Gly	Val	Phe	Ser	Glu	Ser	Ser	Ser	Val	Ala	Ser	Lys	Leu	Ser	Ser	Lys				
				485					490						495				
Ser	Glu	Lys	Glu	Leu	Lys	Asn	Arg	Arg	Lys	Lys	Lys	Lys	Gln	Lys	Glu				
			500					505						510					
Gln	Ser	Gly	Glu	Glu	Glu	Lys	Asn	Asp	Arg	Val	Leu	Lys	Ser	Glu	Ser				
		515					520					525							
Glu	Asp	Ser	Ile	Arg	Arg	Lys	Gly	Phe	Arg	Phe	Ser	Leu	Glu	Gly	Ser				
	530					535					540								
Arg	Leu	Thr	Tyr	Glu	Lys	Arg	Phe	Ser	Ser	Pro	His	Gln	Ser	Leu	Leu				
545					550					555					560				
Ser	Ile	Arg	Gly	Ser	Leu	Phe	Ser	Pro	Arg	Arg	Asn	Ser	Arg	Ala	Ser				
				565				570						575					
Leu	Phe	Ser	Phe	Arg	Gly	Arg	Ala	Lys	Asp	Ile	Gly	Ser	Glu	Asn	Asp				
			580					585					590						
Phe	Ala	Asp	Asp	Glu	His	Ser	Thr	Phe	Glu	Asp	Asn	Asp	Ser	Arg	Arg				
		595					600					605							
Asp	Ser	Leu	Phe	Val	Pro	His	Arg	His	Gly	Glu	Arg	Arg	His	Ser	Asn				
	610					615					620								
Val	Ser	Gln	Ala	Ser	Arg	Ala	Ser	Arg	Val	Leu	Pro	Ile	Leu	Pro	Met				
625					630					635					640				
Asn	Gly	Lys	Met	His	Ser	Ala	Val	Asp	Cys	Asn	Gly	Val	Val	Ser	Leu				
			645					650						655					
Val	Gly	Gly	Pro	Ser	Thr	Leu	Thr	Ser	Ala	Gly	Gln	Leu	Leu	Pro	Glu				
			660					665					670						
Gly	Thr	Thr	Thr	Glu	Thr	Glu	Ile	Arg	Lys	Arg	Arg	Ser	Ser	Ser	Tyr				
		675					680					685							
His	Val	Ser	Met	Asp	Leu	Leu	Glu	Asp	Pro	Thr	Ser	Arg	Gln	Arg	Ala				
	690					695					700								
Met	Ser	Ile	Ala	Ser	Ile	Leu	Thr	Asn	Thr	Met	Glu	Glu	Leu	Glu	Glu				

705		710		715		720
Ser Arg Gln Lys Cys Pro Pro Cys Trp Tyr Lys Phe Ala Asn Met Cys						
		725		730		735
Leu Ile Trp Asp Cys Cys Lys Pro Trp Leu Lys Val Lys His Leu Val						
		740		745		750
Asn Leu Val Val Met Asp Pro Phe Val Asp Leu Ala Ile Thr Ile Cys						
		755		760		765
Ile Val Leu Asn Thr Leu Phe Met Ala Met Glu His Tyr Pro Met Thr						
		770		775		780
Glu Gln Phe Ser Ser Val Leu Ser Val Gly Asn Leu Val Phe Thr Gly						
785		790		795		800
Ile Phe Thr Ala Glu Met Phe Leu Lys Ile Ile Ala Met Asp Pro Tyr						
		805		810		815
Tyr Tyr Phe Gln Glu Gly Trp Asn Ile Phe Asp Gly Phe Ile Val Ser						
		820		825		830
Leu Ser Leu Met Glu Leu Gly Leu Ala Asn Val Glu Gly Leu Ser Val						
		835		840		845
Leu Arg Ser Phe Arg Leu Leu Arg Val Phe Lys Leu Ala Lys Ser Trp						
		850		855		860
Pro Thr Leu Asn Met Leu Ile Lys Ile Ile Gly Asn Ser Val Gly Ala						
865		870		875		880
Leu Gly Asn Leu Thr Leu Val Leu Ala Ile Ile Val Phe Ile Phe Ala						
		885		890		895
Val Val Gly Met Gln Leu Phe Gly Lys Ser Tyr Lys Glu Cys Val Cys						
		900		905		910
Lys Ile Ser Asn Asp Cys Glu Leu Pro Arg Trp His Met His Asp Phe						
		915		920		925
Phe His Ser Phe Leu Ile Val Phe Arg Val Leu Cys Gly Glu Trp Ile						
		930		935		940
Glu Thr Met Trp Asp Cys Met Glu Val Ala Gly Gln Thr Met Cys Leu						
945		950		955		960
Thr Val Phe Met Met Val Met Val Ile Gly Asn Leu Val Val Leu Asn						
		965		970		975
Leu Phe Leu Ala Leu Leu Leu Ser Ser Phe Ser Ser Asp Asn Leu Ala						
		980		985		990
Ala Thr Asp Asp Asp Asn Glu Met Asn Asn Leu Gln Ile Ala Val Gly						
		995		1000		1005
Arg Met Gln Lys Gly Ile Asp Phe Val Lys Arg Lys Ile Arg Glu Phe						

1010	1015	1020
Ile Gln Lys Ala Phe Val Arg Lys Gln Lys Ala Leu Asp Glu Ile Lys 1025 1030 1035 1040		
Pro Leu Glu Asp Leu Asn Asn Lys Lys Asp Ser Cys Ile Ser Asn His 1045 1050 1055		
Thr Thr Ile Glu Ile Gly Lys Asp Leu Asn Tyr Leu Lys Asp Gly Asn 1060 1065 1070		
Gly Thr Thr Ser Gly Ile Gly Ser Ser Val Glu Lys Tyr Val Val Asp 1075 1080 1085		
Glu Ser Asp Tyr Met Ser Phe Ile Asn Asn Pro Ser Leu Thr Val Thr 1090 1095 1100		
Val Pro Ile Ala Val Gly Glu Ser Asp Phe Glu Asn Leu Asn Thr Glu 1105 1110 1115 1120		
Glu Phe Ser Ser Glu Ser Asp Met Glu Glu Ser Lys Glu Lys Leu Asn 1125 1130 1135		
Ala Thr Ser Ser Ser Glu Gly Ser Thr Val Asp Ile Gly Ala Pro Ala 1140 1145 1150		
Glu Gly Glu Gln Pro Glu Val Glu Pro Glu Glu Ser Leu Glu Pro Glu 1155 1160 1165		
Ala Cys Phe Thr Glu Asp Cys Val Arg Lys Phe Lys Cys Cys Gln Ile 1170 1175 1180		
Ser Ile Glu Glu Gly Lys Gly Lys Leu Trp Trp Asn Leu Arg Lys Thr 1185 1190 1195 1200		
Cys Tyr Lys Ile Val Glu His Asn Trp Phe Glu Thr Phe Ile Val Phe 1205 1210 1215		
Met Ile Leu Leu Ser Ser Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile 1220 1225 1230		
Glu Gln Arg Lys Thr Ile Lys Thr Met Leu Glu Tyr Ala Asp Lys Val 1235 1240 1245		
Phe Thr Tyr Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr 1250 1255 1260		
Gly Phe Gln Val Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu 1265 1270 1275 1280		
Ile Val Asp Val Ser Leu Val Ser Leu Thr Ala Asn Ala Leu Gly Tyr 1285 1290 1295		
Ser Glu Leu Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu Arg 1300 1305 1310		
Pro Leu Arg Ala Leu Ser Arg Phe Glu Gly Met Arg Ala Val Val Asn		

1315	1320	1325
Ala Leu Leu Gly Ala Ile Pro Ser Ile Met Asn Val Leu Leu Val Cys 1330	1335	1340
Leu Ile Phe Trp Leu Ile Phe Ser Ile Met Gly Val Asn Leu Phe Ala 1345	1350	1355 1360
Gly Lys Phe Tyr His Cys Ile Asn Tyr Thr Thr Gly Glu Met Phe Asp 1365	1370	1375
Val Ser Val Val Asn Asn Tyr Ser Glu Cys Lys Ala Leu Ile Glu Ser 1380	1385	1390
Asn Gln Thr Ala Arg Trp Lys Asn Val Lys Val Asn Phe Asp Asn Val 1395	1400	1405
Gly Leu Gly Tyr Leu Ser Leu Leu Gln Val Ala Thr Phe Lys Gly Trp 1410	1415	1420
Met Asp Ile Met Tyr Ala Ala Val Asp Ser Arg Asn Val Glu Leu Gln 1425	1430	1435 1440
Pro Lys Tyr Glu Asp Asn Leu Tyr Met Tyr Leu Tyr Phe Val Ile Phe 1445	1450	1455
Ile Ile Phe Gly Ser Phe Phe Thr Leu Asn Leu Phe Ile Gly Val Ile 1460	1465	1470
Ile Asp Asn Phe Asn Gln Gln Lys Lys Lys Phe Gly Gly Gln Asp Ile 1475	1480	1485
Phe Met Thr Glu Glu Gln Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu 1490	1495	1500
Gly Ser Lys Lys Pro Gln Lys Pro Ile Pro Arg Pro Ala Asn Lys Phe 1505	1510	1515 1520
Gln Gly Met Val Phe Asp Phe Val Thr Lys Gln Val Phe Asp Ile Ser 1525	1530	1535
Ile Met Ile Leu Ile Cys Leu Asn Met Val Thr Met Met Val Glu Thr 1540	1545	1550
Asp Asp Gln Ser Gln Glu Met Thr Asn Ile Leu Tyr Trp Ile Asn Leu 1555	1560	1565
Val Phe Ile Val Leu Phe Thr Gly Glu Cys Val Leu Lys Leu Ile Ser 1570	1575	1580
Leu Arg Tyr Tyr Tyr Phe Thr Ile Gly Trp Asn Ile Phe Asp Phe Val 1585	1590	1595 1600
Val Val Ile Leu Ser Ile Val Gly Met Phe Leu Ala Glu Leu Ile Glu 1605	1610	1615
Lys Tyr Phe Val Ser Pro Thr Leu Phe Arg Val Ile Arg Leu Ala Arg		

1620	1625	1630
Ile Gly Arg Ile Leu Arg Leu Ile Lys Gly Ala Lys Gly Ile Arg Thr		
1635	1640	1645
Leu Leu Phe Ala Leu Met Met Ser Leu Pro Ala Leu Phe Asn Ile Gly		
1650	1655	1660
Leu Leu Leu Phe Leu Val Met Phe Ile Tyr Ala Ile Phe Gly Met Ser		
1665	1670	1675
Asn Phe Ala Tyr Val Lys Arg Glu Val Gly Ile Asp Asp Met Phe Asn		
1685	1690	1695
Phe Glu Thr Phe Gly Asn Ser Met Ile Cys Leu Phe Gln Ile Thr Thr		
1700	1705	1710
Ser Ala Gly Trp Asp Gly Leu Leu Ala Pro Ile Leu Asn Ser Gly Pro		
1715	1720	1725
Pro Asp Cys Asp Pro Asp Lys Asp His Pro Gly Ser Ser Val Lys Gly		
1730	1735	1740
Asp Cys Gly Asn Pro Ser Val Gly Ile Phe Phe Phe Val Ser Tyr Ile		
1745	1750	1755
Ile Ile Ser Phe Leu Val Val Val Asn Met Tyr Ile Ala Val Ile Leu		
1765	1770	1775
Glu Asn Phe Ser Val Ala Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu		
1780	1785	1790
Asp Asp Phe Glu Met Phe Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp		
1795	1800	1805
Ala Thr Gln Phe Ile Glu Phe Ala Lys Leu Ser Asp Phe Ala Asp Ala		
1810	1815	1820
Leu Asp Pro Pro Leu Leu Ile Ala Lys Pro Asn Lys Val Gln Leu Ile		
1825	1830	1835
Ala Met Asp Leu Pro Met Val Ser Gly Asp Arg Ile His Cys Leu Asp		
1845	1850	1855
Ile Leu Phe Ala Phe Thr Lys Arg Val Leu Gly Glu Ser Gly Glu Met		
1860	1865	1870
Asp Ala Leu Arg Ile Gln Met Glu Glu Arg Phe Met Ala Ser Asn Pro		
1875	1880	1885
Ser Lys Val Ser Tyr Glu Pro Ile Thr Thr Thr Leu Lys Arg Lys Gln		
1890	1895	1900
Glu Glu Val Ser Ala Ile Ile Ile Gln Arg Ala Tyr Arg Arg Tyr Leu		
1905	1910	1915
Leu Lys Gln Lys Val Lys Lys Val Ser Ser Ile Tyr Lys Lys Asp Lys		

1925 1930 1935
 Gly Lys Glu Cys Asp Gly Thr Pro Ile Lys Glu Asp Thr Leu Ile Asp
 1940 1945 1950
 Lys Leu Asn Glu Asn Ser Thr Pro Glu Lys Thr Asp Met Thr Pro Ser
 1955 1960 1965
 Thr Thr Ser Pro Pro Ser Tyr Asp Ser Val Thr Lys Pro Glu Lys Glu
 1970 1975 1980
 Lys Phe Glu Lys Asp Lys Ser Glu Lys Glu Asp Lys Gly Lys Asp Ile
 1985 1990 1995 2000
 Arg Glu Ser Lys Lys
 2005

<210> 37
 <211> 912
 <212> DNA
 <213> Homo sapiens

<400> 37
 gaattcttta tatgggttga atgactttct gacatagcaa ataaaaagca tgaggagaag 60
 cattatctgt taacaaaatt aacacttaaa atcaacaaag ttttaatgtt tcgttccaag 120
 aaaagcctgt ggaagatcag ttccacaact gagagctttg ggctgcttca gacatatgtc 180
 tgtgtgtacg ctgtgaaggt gtttctcttc acagttcccc gccctctagt ggtagttaca 240
 ataatgccat tttgtagtcc ctgtacagga aatgcctctt ctacttcag ttaccagaat 300
 cctttttacag gaagtttaggt gtggtctttg aaggagaatt aaaaaaaaaa aaaaaaaaaa 360
 aaaaaagatt tttttttttt taaagcatga tggaaatttta gctgcagtct tcttggggcc 420
 agcttatcaa tcccaaactc tgggggtaaa agattctaca ggggtaagt tttattattc 480
 ttattatgct tattctctgt gatgcttctc tacctttaca gtagtagaat ccttggggaa 540
 atctgcagag ggaccacttt cattttgaag ctgctggctg catgttttag catgtctctt 600
 ctattagaga atccaggcat ggcagtttcc tccccagtg tgcaaggacc atcttcatgc 660
 ctatgtctgt cgctaggcat gaggtctctc aggaatgggt gaaaaaaatg agggatgttt 720
 tggaggcact ataatactgg ggagggcagt ctgctagctg gtagctgaaa ggtcctgggt 780
 tacttcaaca ttttttttaa ataaaactgt gcagtagttt ttgttatttt agggttccct 840
 ctgttttatc tgggtgatgc tgcagaagtg aactgcataa cacatttcac tcttagaaat 900
 gcattccata ta 912

<210> 38
 <211> 722
 <212> DNA
 <213> Homo sapiens

<400> 38
 ctacgtgcat gtaactgaca caatcacctc tatctaattgg tcatgcttct tacctcctgt 60
 tctgtagcac tttcttatgc aaggagctaa acagtgatta aaggagcagg atgaaaagat 120
 ggcacagtca gtgctggtac cgccaggacc tgacagcttc cgcttcttta ccagggaatc 180
 ccttgctgct attgaacaac gcattgcaga agagaaagct aagagaccca aacaggaacg 240
 caaggatgag gatgatgaaa atggcccaaa gccaaacagt gacttgggaag cagsaaaatc 300
 tcttccattt atttatggag acattcctcc agagatgggt tcagtgcctc tggaggatct 360
 ggaccctac tatatcaata agaaagttag ttcttagtca agttgccttc actgcctatt 420
 tactaattgg ttctgggcta gtcccaggga tgatggtgaa gaaggctggc ctccctccct 480
 ctgtctaaag tatcactaag atgctggatg ggctgaccg tgtaatggac caatgatcct 540

```

agaagtcttt tggaagcact catttgaacc tgcatttgtg agacaggcag agaactgggtg 600
aggcatcctc cagcgcgggg attaaaggaag gacaaaagcc tattcacctt cttgaataca 660
aattatatgc ttaaaccagt gtaaattgac cctgattccc taataatgtt gagaagcaaa 720
aa                                                    722

```

```

<210> 39
<211> 561
<212> DNA
<213> Homo sapiens

```

```

<400> 39
cctatggcat tgatcacaaa ttttcttaat aatcctcatg tcattttatca aatttaggaa 60
agttttatagt gctcagaaaa aaaaagcatc tatcttcatg tcatatgatg gtaattatta 120
tgttatcacac tattttacag ggcaatattt ataaataatg gttttacttt tctcttaaaa 180
tattcttaat atatatctta agttttgttt tatgtgttgt gttttctttt tcagacgttt 240
atagtattga ataaagggaag agcaatctct cgattcagtg ccaccctgc cctttacatt 300
ttaactccct tcaaccctat tagaaaatta gctattaaga ttttggtaga ttcataatcct 360
ttttcaaatc gtcacttaat atgattttct tctttgacca agttattgag ctacacattt 420
tccaaaatat ctgtggttgg caatgttatg tggtctttct ttttctttcc ttttactcaa 480
tcggttagcat gttgcaaaat gagatcacag gtaagtgaat tactttcccc cgtcttctaa 540
gtgtttcttc tctacccaac t                                                    561

```

```

<210> 40
<211> 510
<212> DNA
<213> Homo sapiens

```

```

<400> 40
acctaaatag cctcaaaata gttgatggct tggcctgaag acaagatcta aatatgaggt 60
tgctgagtta tagaaatggc aaaaaaagg gtcaataata gaataataag caacaaaata 120
atagtaagca ctaaagtttt aaacttcatg gtggtgaagg catggtagtg cataaaagta 180
agatttttcc attgaacttt gtcttccttg acgatattct actttattca atatgctcat 240
tatgtgcacg attcttacca actgtgtatt tatgaccatg agtaaccctc cagactggac 300
aaagaatgtg gagtaagtat aaatatTTTT caatattgac ctccctttat gtttcatatt 360
gtgcttttaa caccttgaga cctcctcaat ttctttaaca aatcatgcta gctactgtta 420
accagaccct gattcaaatt catttctgtc actaaatgtc ttctaggaca aagcttgtag 480
tgggctcact tagttgtgta aattactgca                                                    510

```

```

<210> 41
<211> 370
<212> DNA
<213> Homo sapiens

```

```

<400> 41
taagatatgt acttgtaaatt taaccactag atttttaatg tgagcttggc tattgtctct 60
caggtatacc tttacaggaa tttatacttt tgaatcactt attaaaatac ttgcaagggg 120
cttttgttta gaagatttca catttttacg ggatccatgg aattgggttg atttcacagt 180
cattactttt gcgtaagtat cttaatacat tttctatcct ggaagagtaa atcactgggtg 240
ggagcctata ctatatTTTt cttggtggct tgccttgaca gaccaagcat ttntcttagt 300
aatcatagtt ttcttccaat caaattatcc agtttggaga aattaggaac tatcatagta 360
aattacatgg                                                    370

```

```

<210> 42

```

<211> 370
 <212> DNA
 <213> Homo sapiens

<400> 42
 caattagcac tgtaaagtaa taaagtttcc caaataacag agattatgat tgatgacaat 60
 gccattttcc tcttaattgg gaaagctgat ggcgacactc atgaaattaa aaaggtcttg 120
 atgaaagacc aangaagacg tagattttccc taaattctga ataactctga ttttaattcta 180
 caggatgtga acagaatttg taaacctagg caatgtttca gctcttcgaa ctttcagagt 240
 cttgagagct ttgaaaacta tttctgtaat tccaggtaag aagaaaatgg tataaggtgg 300
 taggccccctt atatctccaa ctgtttcttg tgttctgtca ttgtgtttgt gtgtgaaccc 360
 cctattacag 370

<210> 43
 <211> 410
 <212> DNA
 <213> Homo sapiens

<400> 43
 gtaagaagaa aatggtataa ggtggttaggc cccttatatc tccaactgtt tcttgtgttc 60
 tgtcattgtg tttgtgtgtg aaccccctat tacagatatg tgacagagtt tgtggacctg 120
 ggcaatgtct cagcgttgag aacattcaga gttctccgag cattgaaaac aatttcagtc 180
 attccagggtg agagctagggt taaacaccga ggctgacttt agctacagtg gtgctacaat 240
 cacagctttt gtgcagaagc cttgttgcta gttgcatatt gcaaataaat atgtaaaaaa 300
 gcaagaattg gtacatcatt ttttgatggg atttgattct ttgcttttta cccgttgctt 360
 tctttaaaac tattctaaat cagcctttga gtttaacaag tgttgcatga 410

<210> 44
 <211> 1066
 <212> DNA
 <213> Homo sapiens

<400> 44
 aaagagtgtt tggaataaca catttggttc atttccattc acagttttct aatgaacata 60
 caagttctgc tttcattcat tttcaccagc tagtaggctt ttcattgaaa tgttattcaa 120
 tcacaaacat taaactaata ttgttggcat tctgcatgac atttttatct tccaggccaa 180
 gctcatgata tttttgcccg taaaatagct gttgagtagt atatttaant tcccccttct 240
 gattttgttt gtaggcctga agaccattgt gggggccctg atccagtcag tgaagaagct 300
 ttctgatgtc atgatcttga ctgtgttctg tctaagcgtg tttgcgctaa taggattgca 360
 gttgttcatg ggcaacctac gaaataaatg tttgcaatgg cctccagata attcttcctt 420
 tgaaataaat atcacttcct tctttaacaa ttcattggat ggggaatggt ctactttcaa 480
 taggacagtg agcatattta actgggatga atatattgag gataaaaagta agatatactc 540
 tataaaccat taagttgttt agttctctaa atattaaata ttatatataa tggaaattat 600
 ctcaatttag atgtgaatca agtgacttag actaatttaa gatgatttaa tacatataaa 660
 agagatatca aaggatacct tattctatct ttsttatctg tccattgata tagtaaaagt 720
 tctcatttga aaatgtgttg tcttatactc atgttgaaag taatttcata ttatgccata 780
 ttaaaaaaagg tttatttggt agacattaat cagggttttc agtcatttta ataaataagt 840
 cagtagtttg aactattcmg cgtattccac tgaaatgtcg ttaagaagac tgaggggaaa 900
 taatttgccc ctatttggtt gatgcaacat atgtattgag tacatatgct atatctgaaa 960
 ctagagaaac catttatcaa gatgaaataa gaatttgtgt gctcctcaga aggttaagta 1020
 accctgattt agccattcac ttcattccata ttctaattag tccctt 1066

<210> 45
 <211> 385

<212> DNA
 <213> Homo sapiens

<400> 45
 gttcaattat tgtgaaaaat cttcttttagc catatatatt tattagttta tccatctcat 60
 tatgattgaa aacattttgtg agcttttgcca cctaaacagg gtggctgaag tgttttacag 120
 gatttttaatg attcttttcta ttccttttctc tttaaatagg tcacttttat tttttacagg 180
 ggcaaaatga tgctctgctt tgtggcaaca gctcagatgc agggtaagtg tatgcttcct 240
 actgagtttc agtccacact gctccatcag tgtcaataac ctgccacctc ccaactcatcc 300
 agtcccacca ctctcactc aaaaccctcc ataaattcta cttcacgggtg actctcagaa 360
 tgaccaggat aagtgtagat tctca 385

<210> 46
 <211> 430
 <212> DNA
 <213> Homo sapiens

<400> 46
 tataataatg acaattatga atcacagagg aatccacaaa gtagacctta tagattctgt 60
 cattatataa atcagtcacac ttagtgctga gttaagtact gggtaagggtg agagaaatcg 120
 gcttttttct agtgccctgta taaaacagac attggcatat attaaaacag gaaaaccaat 180
 tagcagactt gccgttattg actycctctc tttcctctaa cctaattaca gccagtgtcc 240
 tgaaggatac atctgtgtga aggctggtag aaaccccaac tatggctaca cgagctttga 300
 caccttttagt tgggcctttt tgtccttatt tcgtctcatg actcaagact tctgggaaaa 360
 cctttatcaa ctgggtgagaa cagataaaat catttttctg agaatcataa aacaccgaac 420
 tcaagagaat 430

<210> 47
 <211> 646
 <212> DNA
 <213> Homo sapiens

<400> 47
 tgctgtagaa tatttttatta cttagagtgt aagtttgtaa catcctatat aaaattttatt 60
 aaaatctctc ttccattttg cagacactac gtgctgctgg gaaaacgtac atgatatttt 120
 ttgtgctggt catttttctg ggctcattct atctaataaa tttgatcttg gctgtggtgg 180
 ccatggccta tgaggaacag aatcaggcca cattggaaga ggctgaacag aaggaagctg 240
 aatttcagca gatgctcgaa cagttgaaaa agcaacaaga agaagctcag gtatagtga 300
 caagcatacg gtcctttgtt tttctgtatc taaattcttt aacctaaatg ttgaggtcag 360
 tggcaaggta gttgacatta gaaataggtc atatgtgttt ggtaagtgtc aggagcctgt 420
 ttggttatta agaagttatt actttattgc aatgatctct gtcaatagtg tcaatagtaa 480
 tggcatcaaa aaatggataa ttataattgc tttactgaca tttttttctc ccttgtgact 540
 ccttgaggaa attaattgatt aacaaaggcc tcatgtactc aaacttgcag agtagataaa 600
 cctacatgtc ctcatgtgaa gtatttttctt aggggaagag gaattc 646

<210> 48
 <211> 711
 <212> DNA
 <213> Homo sapiens

<400> 48
 tatgtatcat cttccatatt aatgcgcatt ttactctttg attggtctaa taacagtgtg 60
 ctgtgttcta aaacacagaa taaaatggag aattgttttt caagattatc ttcatgatat 120
 tgaagctcaa ttaagcagta acatgataat tatttttttaa gatnatatgc aacttccac 180

```

atacttttgcg cccttctagg cggcagctgc agccgcacatc gctgaatcaa gagacttcag 240
tggtgctgggt gggataggag ttttttcaga gagttcttca gtagcatcta agttgagctc 300
caaaagtga aaagagctga aaaacagaag aaagaaaaag aaacagaaag aacagtctgg 360
agaagaagag aaaaatgaca gagtcctaaa atcgggaatct gaagacagca taagaagaaa 420
aggtttccgt ttttccttgg aaggaagtag gctgacatat gaaaagagat tttcttctcc 480
acaccaggta aaaatattaa attacatgaa ttgtgttctc ataaattttt taaaagaata 540
tgccagaatt taatggagag aaaaccgcct tccacctgga tggcacaatg ctttcagagt 600
agtgatgatt atcaagtgtt ttggctatca cttcagagaa tttgtgagtt ttgcaacttt 660
ttggaatccc aggaaggaaa ttttagatcc ctctggggtt ggaaaaattt g 711

```

<210> 49
 <211> 1026
 <212> DNA
 <213> Homo sapiens

```

<400> 49
ttatggggac acttctgact atgttgaggt gtgggtaaag taggagaaaa gagagcagaa 60
gatgaaaaat ggaggaagga gaaaaagcga gagtgaata gaaaagggtga accttgtaga 120
aagtgccaaa atgccaccag cagtcacacag aggggtgctt tcttcacacat gtccaatgac 180
ttatccttga gtaagtcaat gactatgaca caatgaatca aattctgttt ttcagaatgc 240
cagctcttaa ctctcttcat ctcatTTTTTg tttcttttct tgttattcat agtccttact 300
gagcatccgt ggctcccttt tctctccaag acgcaacagt agggcgagcc ttttcagctt 360
cagaggtcga gcaaaggaca ttggctctga gaatgacttt gctgatgatg agcacagcac 420
ctttgaggac aatgacagcc gaagagactc tctgttcgtg ccgcacagac atggagaacg 480
gcgccacagc aatgtcagcc aggccagccg tgcttccagg gtgctcccca tcctgcccac 540
gaatgggaag atgcatagcg ctgtggactg caatgggtgtg gtctccctgg tcggggggccc 600
ttctaccctc acatctgctg ggcagctcct accagaggtg aggccaaacy magattgcag 660
ctgatgtgaa gagagttgtg actggtgcag gcaggagtgy ttttccattt mcacatctaa 720
gaatttkttg agtttsttgc ccaaaggctg ggagtttgtt caatcaagct gttaactgtc 780
ttgtgaaact sttctattca gacttttcta caaagtaatt aaaaacctag gttggctgtc 840
agagaatata attagamgtm atctttcatc ayyattacta tggatgaaa ctcgccaaaa 900
agcaaagcaa caatttatca agcataatgt tygaytaata tagttaaatt aaatccaagg 960
aaattaatgc tcacaaatta aataaatact taaggatttt gtgattgttg ttcatttaaa 1020
aggaga 1026

```

<210> 50
 <211> 601
 <212> DNA
 <213> Homo sapiens

```

<400> 50
ataggaaagc ccaccttgac aaaccaggg ctccccaaaa gctgaaaatc tgacagactt 60
taaacaaccc ccaaataatt atcattccaa caatatctta gtgagctttt tacatctgag 120
aaagcatggg gtatatattag ttaaataaca cctgtttagt gaatgctttg ggctttgctg 180
ctttcaaaaa tagtggttat ttcatctgaa attctacttc tagggcacia ctactgaaac 240
agaaataaga aagagacggg ccagttctta tcatgtttcc atggatttat tggagatcc 300
tatcatcaagg caaagagcaa tgagtatagc cagtattttg accaacacca tggaggtat 360
gttaaaagtc ctgcgtcaca gttacttggg gctttcctaa tgatgaaaaa cacttcataa 420
atttcaataa aatacttcct gacttgatat tgtatcatta ttacacattt tactaaataa 480
cagtaaaatc cgtgcataac tcatggattc atatatcca cagatttttt ttttttatat 540
ttagcctgta gaaagctgct gcaaatgtaa ggtatatattg aacaccactt tcataactta 600
a 601

```

<210> 51

<211> 645
 <212> DNA
 <213> Homo sapiens

<400> 51
 gcttactagc ctttctgtac tgatcctttc tatgacagca aacccattgt aaaattttcc 60
 ctgttcctcc agcagattaa ccataatat cttttaacaa ctttagattt tttaaattcc 120
 ttttaattta aaccaaactc gcttaataga aagtaagcag ttttcatgag gattctaact 180
 ttttttcttc cagaacttga agaatccaga cagaaatgcc caccatgctg gtataaattt 240
 gctaatatgt gtttgatttg ggactgttgt aaacatggt taaagggtgaa acaccttgctc 300
 aacctgggtg taatggaccc atttgttgac ctggccatca ccatctgcat tgtcttaaat 360
 acactcttca tggctatgga gcactatccc atgacggagc agttcagcag tgtactgtct 420
 gttggaaacc tggtaagcct cactgagagt ttctcttcct cttgaaagag tttataattg 480
 ccttagtgaa ttttacatat tgctctcaaa ttaatatca actaattggc catgtatatc 540
 ttgacatcaa atgttttagca tcccttttaa ataacaaaa aatgttgcta ccatagtgca 600
 aaagagtcaa agaatttatg tacaatttga tttagaattg aattt 645

<210> 52
 <211> 485
 <212> DNA
 <213> Homo sapiens

<400> 52
 tggcccaaac caatttttta atcaggaatt taatttwtat attgttggga gttaaattaa 60
 gttgctcaat aattattcgt gtttcaakas tatttgctca tataatgaac tacacttctc 120
 atttaggtct tcacagggat cttcacagca gaaatgtttc tcaagataat tgccatggat 180
 ccatattatt actttcaaga aggctggaat atttttgatg gttttattgt gagccttagt 240
 ttaatggaac ttggtttggc aaatgtggaa ggattgtcag ttctccgatc attccggctg 300
 gtaaattaac tgggagtgtt cataaaatgt actttrtaat taattagtct tcattctcat 360
 ctagtaaaaa tggcaagatt tcccatcatt ataatatatt tgaatacctt ctaaaacaga 420
 ttggattgcc ataccaccaa atggtagttt cttcttcac atagctttta taaagttcac 480
 ttaaa 485

<210> 53
 <211> 602
 <212> DNA
 <213> Homo sapiens

<400> 53
 acagatttcc tcctgtgtcc atgtgactaa cccattgtgc acatgtaccc taaaaattag 60
 tatataataa taaaataaaa taaaaataaa aataaaaaaa taaaaataaa ataaaattgc 120
 agattttttt agaaatgcag agattaacac tgttcttgct tttatttcca gctccgagtt 180
 ttcaagtttg caaaatcttg gccaaactcta aatatgctaa ttaagatcat tggcaattct 240
 gtgggggctc taggaaacct caccttggtg ttggccatca tcgtcttcat ttttgctgtg 300
 gtcggcatgc agctctttgg taagagctac aaagaatgtg tctgcaagat ttccaatgat 360
 tgtgaactcc cagctgggca catgcatgac tttttccact ccttctgat cgtgttccgc 420
 gtgctgtgtg gagagtggat agagaccatg tgggactgta tggaggctgc tggccaaacc 480
 atgtgcctta ctgtcttcat gatggtcatg gtgattggaa atctagtgg atgtagcaaa 540
 aacattttcc tcattttcat taaaaataat gtaatcatta aaaagtgttc aactgaagaa 600
 ta 602

<210> 54
 <211> 803
 <212> DNA

<213> Homo sapiens

<400> 54

```
gtttcatttta gcaatgattt cagtattttc tgcaatgact aataagcaaa tagtgataat 60
agtattattt tatattgacc aagcattttt atttcattca ctttttttca gaatagtgtgta 120
tcatgaatta gcagaaatgc atgttagaat aaaataaggt gtcaagaaca atcttagaaa 180
actaatgatg gaaagcaatt gaagcaatag aatgttttga tcacctgttt ttcctgctgt 240
gtttcagggt ctgaacctct tcttggcctt gcttttgagt tccttcagtt ctgacaatct 300
tgctgccact gatgatgata acgaaatgaa taatctccag attgctgtgg gaaggatgca 360
gaaaggaatc gattttgtta aaagaaaaat acgtgaattt attcagaaag cctttgttag 420
gaagcagaaa gcttttagatg aaattaaacc gcttgaagat ctaaataata aaaaagacag 480
ctgtatttcc aaccatacca ccatagaaat aggcaagac ctcaattatc tcaaagacgg 540
aaatggaact actagtggca taggcagcag tgtagaaaaa tatgtcgtgg atgaaagtga 600
ttacatgtca ttataaaaca accctagcct cactgtgaca gtaccaattg ctgttgagga 660
atctgacttt gaaaatttaa atactgaaga attcagcagc gagtcagata tggaggaaag 720
caaagaggta aaatgtttaa taaggagata ttttgggtga tataatctgt gttaaatatc 780
aggtgtttta tgcgtgtctc tgt 803
```

<210> 55

<211> 615

<212> DNA

<213> Homo sapiens

<400> 55

```
atctctatac taggctcaaa cagaagttat ttccgttggt agcaccatat ttttaaaaga 60
aaaaaaaaata ctatgggtgt gtatctaata ttgtgacccc tgacctttac caaagcggat 120
tggcattatg tttaagttct taattacaga tcaagaaaaa tgcatacaga agatgggggg 180
gggcacacct aattaatttt tataatttaga tttaagaaaa taattaaatg tgtttttttg 240
tgggattgat tttcagaagc taaatgcaac tagttcatct gaaggcagca cggttgatat 300
tggagctccc gccgaggagg aacagcctga ggttgaacct gaggaatccc ttgaacctga 360
agcctgtttt acagaagnnn nnnnnnaagc aaaacaataa catatgtggt cttgagtatc 420
ctcttttcta cccatttttt cctattttatt taaatgtctg tttattttgtc taccatctag 480
ttcatctatc tatctgtatc tatctatcta tctatctatc tagtaatcat ctatacctat 540
ccaacaactg tacattttatt tgtttttttt ttttgcatth gctgttttgaa aaaaaatgca 600
acgtttttaa ggcaa 615
```

<210> 56

<211> 400

<212> DNA

<213> Homo sapiens

<400> 56

```
gatagctttt gtaagcggaa gctatcttaa aaattaatgt tatttacaat gtattatcag 60
gtaataatgt aaatgaatct cccaccaaca caaatatacc taatcaaaga gtaatttttt 120
gtcttcattt ttttccaca tatttttagac tgtgtacgga agttcaagtg ttgtcagata 180
agcatagaag aaggcaaagg gaaactctgg tggaaatttg ggaaaacatg ctataagata 240
gtggagcaca attggttcga aaccttcatt gtcttcatga ttctgctgag cagtggggct 300
ctggtaggtg atgcatgatc cactccttca cctttcatct gaaatctttt ccccttccct 360
tcaatcaact catattaccc actttttaat taagggtgtt 400
```

<210> 57

<211> 560

<212> DNA

<213> Homo sapiens

<400> 57
aaattactga aacccttgggt tgactgaaat gccagtcag cagtcattta tgatcagata 60
atgataaagt aaaattcagc catgggaaac attaaacctt ccagccttag gcacctgata 120
agagcttgca tctgttccctt ttttaagaaa tcatcaatta gagactgttt ctgatcataa 180
aattttaatag aattttttga cttacaggcc tttgaagata tatacattga gcagcgaaaa 240
accattaaga ccatgttaga atatgctgac aaggttttca cttacatatt cattctggaa 300
atgctgctaa agtgggttgc atatggtttt caagtgtatt ttaccaatgc ctgggtgctgg 360
ctagacttcc tgattgttga tgtgagtatg ctgcactttg ctgctttatt cattggcata 420
tatgtaatag ttctagcaat ggtgcctgac acagtgtagg cactcagtaa cactgtatca 480
gcccaaatat aaattatgtt tctcatttca cagtgaagg atgcctcaaa acatttttta 540
ccaatttaaa tacatatata 560

<210> 58
<211> 480
<212> DNA
<213> Homo sapiens

<400> 58
aaattcttag gcctttcccc aaacttacta agtcagactc tgctattggt gtttttaaca 60
agacccttgg gtgattttga aactcatgaa agttcgagaa ttactgattc attgcataga 120
gcaaggctga actgtgtaga cttttttata tgtaaataag aaaattgtgt tgctttttct 180
gtataggtct cactggtttag cttaactgca aatgccttgg gttactcaga acttggtgcc 240
atcaaattccc tcagaacact aagagctctg aggccactga gagctttgtc ccggtttgaa 300
ggaatgaggg taagactgaa tgccttagag tttgtcagaa ttattattga gagcagactg 360
acacttttga ccatggaaat gtcaaattta tggagaattt gtgtcttaca cattcatact 420
gacatagcta atcaatcaaa aataatattt accagatgcc cataatactt ggcaactgctg 480

<210> 59
<211> 640
<212> DNA
<213> Homo sapiens

<400> 59
taatttttaaa attcttagtt ggagctacca gagtctagtt tctacccaat attcaacttt 60
gaaacagatt tttttaatca tttgactgtt cttttaataa tgtttaaaaa taagtaaata 120
tttggtgttg gcttttccct tatttttccct tctcatcctg tgccagggtg ttgtaaatgc 180
tcttttagga gccattccat ctatcatgaa tgtacttctg gtttgtctga tcttttggct 240
aatattcagt atcatgggag tgaatctctt tgctggcaag ttttaccatt gtattaatta 300
caccactgga gagatgtttg atgtaagcgt ggtcaacaac tacagtgagt gcaaagctct 360
cattgagagc aatcaaaactg ccagggtgaa aaatgtgaaa gtaaaactttg ataacgtagg 420
acttgatat ctgtctctac ttcaagtagt aagtaatcac tttattattt tccatgatgt 480
gtaattaaaa tgagtctaaa gtttttcttc ctcataatga gatatccacc tgttagaatg 540
gctattatca aacagataaa tgacaataaa tgctggcaag aatgtgaaga aaaggaacc 600
cttgtagatt gttggcaggg atgtaaatta gtatagcttt 640

<210> 60
<211> 480
<212> DNA
<213> Homo sapiens

<400> 60
atttgaagta ttttcaatgc atatcgcaaa acattgcccc aaaagtgaat acaaatttca 60
agcttattta tatgcctgta ttgaatacat gtcaaataga attttgatca attattcaat 120

```

ttattttcta aaattataat tttgggaaaa aagaaaatga tatgactttt cttacaggcc 180
acgtttaagg gatggatgga tattatgtat gcagctgttg attcacgaaa tgtaagtcta 240
gtagagggga aattgtttag tttgattaaa tgtatatatt tacaatattg taatttagtg 300
atattgtcaa taaaataaaa ttatgtgctt aatttataaa acccatctat attataagga 360
taaaatattt aatcatacta tttctttcaa aattatcata ggatgatttt ctctaatacac 420
tctgtatctt ttaacatatc ttttctagta tttagcaagg cacctgacac aaaactttat 480

```

<210> 61
 <211> 366
 <212> DNA
 <213> Homo sapiens

```

<400> 61
taaaacatgc ttagataatt aaaaactcac tgatgtactt tttgtgaaac aagtactaga 60
tataatgggt acaattcttc atattcttta ggtagaatta caacccaagt atgaagacaa 120
cctgtacatg tatctttatt ttgtcatctt tattattttt ggttcattct ttaccttgaa 180
tcttttccatt ggtgtcatca tagataactt caaccaacag aaaaagaaga taagtatatt 240
aaaacttcat ccttgctctg aaatatgaac taaatatttc atactctttc ctttagcctc 300
caaaatgcaa tcaccaaaaa aagaatataa aattcagaaa ttattttgag acatttgata 360
atcgat 366

```

<210> 62
 <211> 560
 <212> DNA
 <213> Homo sapiens

```

<400> 62
tcgataagct ttttaagcaat taataattca gatagcatgt ttttgatatt tttagtctag 60
aaatatgact aatatggcat aatttatata ttgaataaag gcatctctat aaatacagat 120
attagtaaca atagaatgaa atgtgggagc caattttcac atgattacta aggtggattt 180
tatagccagc aaagaacaca attttaacaa gtgttgcttt catttcttta ctttggaggt 240
caagacattt ttatgacaga agaacagaag aaatactaca atgcaatgaa aaaactgggt 300
tcaaagaaac caaaaaaccc catacctcga cctgctgtaa gaataacata ttttcattgc 360
ctgttaaaac tatattacct aaccgtttca cagcccgaat ttctagaaac tagttatttt 420
tgtggatttg taacacaaag ttttttacct taacaatggg actagctagc ctaaatagct 480
tgaaaaatgt actttacata tataatatgt ataaattata taatgcataa catattttat 540
atgtaaacad ataaaatata 560

```

<210> 63
 <211> 650
 <212> DNA
 <213> Homo sapiens

```

<400> 63
gttttgcaag gaattttttt ttttgtaaaa tgttgtgagg attaaagatg tgtttttata 60
aaagctacat tttttgttgc tttcttaaaa tcagaagaat tgaattcgat tttttttaag 120
gtttctaatt gaacttttac atattatttg ttccagaaca aattccaagg aatgggtctt 180
gattttgtaa ccaaacaagt ctttgatata agcatcatga tcctcatctg ccttaacatg 240
gtcaccatga tgggtgaaac cgatgaccag agtcaagaaa tgacaaacat tctgtactgg 300
attaatctgg tgtttattgt tctgttcact ggagaatgtg tgctgaaact gatctctctt 360
cgttactact atttcactat tggatggaat atttttgatt ttgtgggtgg cattctctcc 420
attgtaggta agaagagggt cttttattca gttaaggaat atagtggtaa aaatatgtgt 480
tttaaaactt tagagggtgt tttcactaat ctttctcatt catcccaaac tcccaaataa 540
aaatctaata gtccattgtt ttagtttttag tttgccattt ctctaattgc atgctgtgct 600

```

tgaaatgatg agtgaatac aaggaattta tattttcagc tttcatttat

650

<210> 64

<211> 3700

<212> DNA

<213> Homo sapiens

<400> 64

```
aatgttataa caccaaacat accagtttca ttttgtctcaa caaacattgc agattatttg 60
catatataca tgtacctaac tgtcctgttc acatttttgta aaactaatgt acttatgtaa 120
acttttcattt gctactatta agtataacaa tattttttgtt atttgttgat tttctacagg 180
aatgtttctg gctgaactga tagaaaagta ttttgtgtcc cctaccctgt tccgagtgat 240
ccgtcttgcc aggattggcc gaatcctacg tctgatcaaa ggagcaaagg ggatccgcac 300
gctgctcttt gctttgatga tgtcccttcc tgcgttgttt aacatcggcc tccttctttt 360
cctgggtcatg ttcactctacg ccactctttg gatgtccaat tttgcctatg ttaagaggga 420
agttgggagc gatgacatgt tcaactttga gacctttggc aacagcatga tctgcctgtt 480
ccaaattaca acctctgctg gctgggatgg attgctagca cctattctta atagtggacc 540
tccagactgt gaccctgaca aagatcaccc tggaagctca gttaaaggag actgtgggaa 600
cccatctgtt gggattttct tttttgtcag ttacatcatc atatccttcc tggttgtggt 660
gaacatgtac atcgcggtca tcctggagaa cttcagtgtt gctactgaag aaagtgcaga 720
gcctctgagt gaggatgact ttgagatgtt ctatgagggt tgggagaagt ttgatcccga 780
tgcgaccagc tttatagagt ttgccaaact ttctgatttt gcagatgcc tggatcctcc 840
tcttctcata gcaaaaccca acaaagtcca gctcattgcc atggatctgc ccatggtgag 900
tgggtgaccg atccactgtc ttgacatctt atttgctttt acaaagcgtg ttttgggtga 960
gagtggagag atggatgccc ttcgaataca gatggaagag cgattcatgg catcaaacc 1020
ctccaaagtc tcttatgagc ccattacgac cacgttgaaa cgcaaacaag aggaggtgtc 1080
tgctattatt atccagaggg cttacagacg ctacctcttg aagcaaaaag ttaaaaagg 1140
atcaagtata tacaagaaag acaaaggcaa agaattgtat ggaacacca tcaaagaaga 1200
tactctcatt gataaactga atgagaattc aactccagag aaaaccgata tgacgccttc 1260
caccacgtct ccaccctcgt atgatagtgt gaccaaacca gaaaaagaaa aatttgaaaa 1320
agacaaatca gaaaaggag acaaagggaa agatatcagg gaaagtaaaa agtaaaaaga 1380
aaccaagaat tttccatttt gtgatcaatt gtttacagcc cgtgatgggt atgtgtttgt 1440
gtcaacagga ctccacagc aggtctatgc caaactgact gtttttacia atgtatactt 1500
aaggtcagtg cctataacaa gacagagacc tctggtcagc aaactggaac tcagtaaaact 1560
ggagaaatag tatcgatggg aggtttctat tttcacacc agctgacact gctgaagagc 1620
agaggcgtaa tggctactca gacgatagga accaatttaa aggggggagg gaagttaaat 1680
ttttatgtaa attcaacatg tgacacttga taatagtaat tgtcaccagt gtttatgttt 1740
taactgccac acctgccata tttttacaaa acgtgtgctg tgaatttatc acttttcttt 1800
ttaattcaca ggttggtttac tattatatgt gactattttt gtaaatgggt ttgtgttttg 1860
ggagagggat taaagggagg gaattctaca tttctctatt gtattgtata actggatata 1920
ttttaaatgg aggcattgct caattctcat tcacacataa aaaaatcaca tcacaaaagg 1980
gaagagttta cttcttggtt caggatgttt ttagattttt gaggtgctta aatagctatt 2040
cgtattttta aggtgtctca tccagaaaaa atttaattgt cctgtaaatg ttccatagaa 2100
tcacaagcat taaagagttg ttttattttt acataaccca ttaaatgtac atgtatatat 2160
gtatatatgt atatgtgcgt gtatatatat atatatgtat acacacatgc acacacagag 2220
atatacacat accattacat gtgcattcac agtcccagca gcatgactat cacatttttg 2280
ataagtgtcc tttggcataa aataaaaaata tcctatcagt cctttctaa aagcctgaat 2340
tgaccaaaaa acatccccc caccacttta taaagttgat tctgctttat cctgcagtat 2400
tgtttagcca tcttctgctc ttggtaaagg tgacatagta tatgtcaatt taaaaataa 2460
aagtctgctt tgtaaatagt aattttaccc agtgggtgcat gtttgagcaa acaaaaatga 2520
tgattttaagc aactacttta ttgcatcaaa tatgtaccac agtaagtata gtttgcaagc 2580
tttcaacagg taatatgatg taattgggtc cattatagtt tgaagctgtc actgctgcat 2640
gtttatcttg cctatgctgc tgtatcttat tccttccact gttcagaagt ctaatatggg 2700
aagccatata tcagtggtaa agtgaagcaa attgttctac caagacctca ttcttcatgt 2760
cattaagcaa taggttgtag caaacaagga agagcttctt gctttttatt cttccaacct 2820
taattgaaca ctcaatgatg aaaagcccga ctgtacaaac atgttgcaag ctgcttaaat 2880
```

ctgttttaaaa	tatatgggta	gagttttcta	agaaaatata	aatactgtaa	aaagttcatt	2940
ttatttttatt	tttcagcctt	ttgtacgtaa	aatgagaaat	taaaagtatc	ttcaggtgga	3000
tgtcacagtc	actattgtta	gtttctgttc	ctagcacttt	taaattgaag	cacttcacaa	3060
aataagaagc	aaggactagg	atgcagtgta	ggtttctgct	tttttattag	tactgtaaac	3120
ttgcacacat	ttcaatgtga	aacaaatctc	aaactgagtt	caatgtttat	ttgctttcaa	3180
tagtaatgcc	ttatcattga	aagaggctta	aagaaaaaaa	aaatcagctg	atactcttgg	3240
cattgcttga	atccaatggt	tccacctagt	ctttttattc	agtaatcatc	agtcttttcc	3300
aatgtttggt	tacacagata	gatcttattg	acccatatgg	cactagaact	gtatcagata	3360
taatatggga	tcccagcttt	ttttcctctc	ccacaaaacc	aggtagtga	gttatattac	3420
cagttacagc	aaaatacttt	gtgtttcaca	agcaacaata	aatgtagatt	ctttatactg	3480
aagctattga	cttgtagtgt	gttggtgaat	gcatgcagga	agatgctggt	accataaaga	3540
acggtaaacc	acattacaat	caagccaaag	aataaagggt	cgcttatgta	tatgtattta	3600
attgttgtct	ttgtttctat	ctttgaaatg	ccatttaaag	gtagatttct	atcatgtaaa	3660
aataatctat	ctgaaaaaca	aatgtaaaga	acacacatta			3700

<210> 65
 <211> 9112
 <212> DNA
 <213> Homo sapiens

<400> 65	
accatagagt	gaatctcaga
tctctttggt	ttcttatcca
ctctgtgggc	aaaaaaaaaa
ataccctaac	catcttggat
atcagagatt	atggagcaag
gatacctgtc	aaggattcat
tagggatatt	gtaagaataa
aaaggtgctg	tgactactcta
ggacttagag	acaacagtat
attcaaattc	tttattccag
gctacacgta	attaaatgtg
gacctgaaag	cttccgcctt
cagaagagaa	agccaagaag
agccaaatag	tgacttggaa
cagagatggt	gtcagagccc
ttatagtaat	gaataaagga
ttttaactcc	actaaaccct
tcagcatgct	tatcatgtgc
ctcctgactg	gacaaagaat
ttataaaaat	cttggcaaga
ggaactggct	ggatttcagt
gcaatgtctc	agcgttgaga
ttccagggtt	aaagaccatt
tgatgaccc	gactgtgttc
tgggcaatct	gaggaataaa
acaccacttc	ctactttaat
tgagcacatt	taactggaag
ggcaaaaaga	ccctttactc
acatctgtgt	gaaggctggt
gctgggcttt	cctgtctcta
agttgacatt	acgtgctgct
tgggctcatt	ttattingtg
agaatcaggc	caccttggaa
aacagcttaa	aaagcaacag
gagatttcag	tgggaataggt
gaggcataag	cagagaggat
aagaaaaaaa	attgtaacta
aagctgaaca	gctgcagagg
gttatgctgt	aattcataag
ccaagccaca	tcaagggttg
cttactggga	aaggagcaaa
tcacagaagg	gacctggagc
ctgagagtct	ggaactagcc
acgagacggt	tttactttct
gtaaataaga	aggtaattcg
agatggcaca	ggcactgttg
aatctcttgc	tgctatcgaa
tgatgatgag	aacaaacca
accttccatt	tatttatgga
tggatcccta	ctatatcaat
cccgattcag	tgccacctct
ttgctabsaa	gatttttggt
ccaactgtgt	atztatgacc
atztatgacc	ttgagcaacc
aatctatacc	tttgagtcac
tacgtttctt	cgtgatccat
gacagagttt	gtggacctgg
actgaaaaca	atttcagtca
ggtaaagaag	ctttctgatg
tgatccagtc	cattgggctg
tgcttgagcg	tgcttgagcg
ggcccccaag	cgattctgct
gacatttgtt	aatgtaacaa
gcatttttat	gttttggatg
aggccagtgt	ccagaaggat
cacaagcttt	gacaccttta
ctactgggaa	aatctttacc
ttttgtcctg	gtcattttct
ggccatggcc	tatgaggggc
cgaatttcag	cagatgctcg
ggcagcatca	gctgcttcaa
aagttcttca	gaagcatcaa

agttgagttc	caaaagtgtc	aaagaatgga	ggaaccgaag	gaagaaaaga	agacagagag	2160
agcaccttga	aggaaacaac	aaaggagaga	gagacagctt	tcccaaatac	gaatctgaag	2220
acagcgtcaa	aagaagcagc	ttccttttct	ccatggatgg	aaacagactg	accagtgcac	2280
aaaaattctg	ctccctcat	cagtctctct	tgagtatccg	tggctccctg	ttttcccaa	2340
gacgcaatag	caaaacaagc	attttcagtt	tcagaggtcg	ggcaaaggat	gttggatctg	2400
aaaatgactt	tgctgatgat	gaacacagca	catttgaaga	cagcgaaagc	aggagagact	2460
cactgtttgt	gccgcacaga	catggagagc	gacgcaacag	taacggcacc	accactgaaa	2520
cggaagtcag	aaagagaagg	ttaagctctt	accagatttc	aatggagatg	ctggaggatt	2580
cctctggaag	gcaaagagcc	gtgagcatag	ccagcattct	gaccaacaca	atggaagaac	2640
ttgaagaatc	tagacagaaa	tgtccgccat	gctggatag	atgtgccaat	gtgttcttga	2700
tctgggactg	ctgtgatgca	tggttaaaag	taaaacatct	tgtgaattta	attgttatgg	2760
atccatttgt	tgatcttgcc	atcactattt	gcattgtctt	aaataccctc	tttatggcca	2820
tggagcacta	ccccatgact	gagcaattca	gtagtgtgtt	gactgtagga	aacctgggtct	2880
ttactgggat	ttttacagca	gaaatgggtc	tcaagatcat	tgccatggat	ccttattact	2940
atttccaaga	aggctggaat	atctttgatg	gaattattgt	cagcctcagt	ttaatggagc	3000
ttggtctgtc	aaatgtggag	ggattgtctg	tactgcatc	attcagactg	cttagagttt	3060
tcaagttggc	aaaatcctgg	cccacactaa	atatgtctaat	taagatcatt	ggcaattctg	3120
tgggggctct	aggaaacctc	accttgggtg	tggccatcat	cgtcttcatt	tttgctgtgg	3180
tccgcatgca	gctctttggg	aagagctaca	aagaatgtgt	ctgcaagatc	aatgatgact	3240
gtacgctccc	acggtggcac	atgaacgact	tcttccactc	cttcctgatt	gtgttccgcg	3300
tgtgtgtggg	agagtggata	gagaccatgt	gggactgtat	ggaggtcgc	ggccaaacca	3360
tgtgccttat	tgttttcatg	ttggtcatgg	tcattggaaa	ccttgtgggt	ctgaacctct	3420
ttctggcctt	attgttgagt	tcatttagct	cagacaacct	tgctgctact	gatgatgaca	3480
atgaaatgaa	taatctgcag	attgcagtag	gaagaatgca	aaagggaatt	gattatgtga	3540
aaaataagat	gcgggagtg	ttccaaaaag	ccttttttag	aaagccaaaa	gttatagaaa	3600
tccatgaagg	caataagata	gacagctgca	tgtccaataa	tactggaatt	gaaataagca	3660
aagagcttaa	ttatcttaga	gatgggaatg	gaaccaccag	tgggtgtagg	actggaagca	3720
gtgttgaaaa	atacgtaatc	gatgaaaatg	attatatgtc	attcataaac	aacccagacc	3780
tcaccgtcac	agtgccaat	gctgttggag	agtctgactt	tgaaaactta	aatactgaag	3840
agttcagcag	tgagtcagaa	ctagaagaaa	gcaaggagaa	attaaatgca	accagctcat	3900
ctgaaggaag	cacagttgat	gttgttctac	cccgaagaag	tgaacaagct	gaaactgaac	3960
ccgaagaaga	ccttaaaccg	gaagcttggt	ttactgaagg	atgtattaaa	aagtttccat	4020
tctgtcaagt	aagtacagaa	gaaggcaaa	ggaagatctg	gtggaatctt	cgaaaaacct	4080
gctacagtat	tgttgagcac	aactggtttg	agactttcat	tgtgttcatg	atccttctca	4140
gtagtgtg	attggccttt	gaagatatat	acattgaaca	gcgaaagact	atcaaaacca	4200
tgctagaata	tgctgacaaa	gtctttacct	atatattcat	tctggaaatg	cttctcaaat	4260
gggttgctta	tggatttcaa	acataatttca	ctaattgcctg	gtgctggcta	gatttcttga	4320
tcgttgatgt	ttctttgggt	agcctggtag	ccaatgctct	tggctactca	gaactcgggtg	4380
ccatcaaatac	attacggaca	ttaagagctt	taagacctct	aagagcctta	tcccggtttg	4440
aaggcatgag	ggtggttg	aatgctcttg	ttggagcaat	tccctctatc	atgaatgtgc	4500
tgttgggtctg	tctcatcttc	tggttgatct	ttagcatcat	gggtgtgaat	ttgtttgctg	4560
gcaagttcta	ccactgtgtt	aacatgacaa	cgggtaacat	gtttgacatt	agtgatgtta	4620
acaatttgag	tgactgtcag	gctcttgcca	agcaagctcg	gtggaaaaac	gtgaaagtaa	4680
actttgataa	tgttggcgct	ggctatcttg	cactgcttca	agtggccaca	tttaaaggct	4740
ggatggatat	tatgtatgca	gctgttgatt	cacgagatgt	taaacttcag	cctgtatatg	4800
aagaaaatct	gtacatgtat	ttatactttg	tcacttttat	catctttggg	tcattcttca	4860
ctctgaatct	attcattgg	gtcatcatag	ataacttcaa	ccagcagaaa	aagaagtttg	4920
gaggtcaaga	catctttatg	acagaggaac	agaaaaata	ttacaatgca	atgaagaaac	4980
ttggatccaa	gaaacctcag	aaaccatac	ctcgccagc	aaacaaattc	caaggaatgg	5040
tctttgattt	tgttaaccaga	caagtctttg	atatcagcat	catgatcctc	atctgcctca	5100
acatggtcac	catgatggtg	gaaacggatg	accagggcaa	atacatgacc	ctagttttgt	5160
cccgatcaa	cctagtgttc	attgttctgt	tactggaga	atgtgtgctg	aagctcgtct	5220
ccctcagaca	ctactacttc	actataggct	ggaacatctt	tgactttgtg	gtggtgattc	5280
tctccattgt	aggtatgttt	ctggctgaga	tgatagaaaa	gtattttgtg	tcccctacct	5340
tgttccgagt	gatccgtctt	gccaggattg	gccgaatcct	acgtctgatc	aaaggagcaa	5400
aggggatccg	cacgctgctc	tttgctttga	tgatgtccct	tcctgcgttg	tttaacatcg	5460
gcctcctgct	cttcctggtc	atgtttatct	atgccatctt	tgggatgtcc	aactttgcct	5520

atgttaaaaa	ggaagctgga	attgatgaca	tggtcaactt	tgagaccttt	ggcaacagca	5580
tgatctgctt	gttccaaatt	acaacctctg	ctggatggga	tggtattgcta	gcacctattc	5640
ttaatagtgc	accacccgac	tgtgaccctg	acacaattca	ccctggcagc	tcagttaagg	5700
gagactgtgg	gaacccatct	gttgggattt	tcttttttgt	cagttacatc	atcatatcct	5760
tcctgggtgg	ggtgaacagt	tacatcgcg	tcctcctgga	gaacttcagt	gttgctactg	5820
aagaaagtgc	agagcccctg	agtgaggatg	actttgagat	gttctatgag	gtttgggaaa	5880
agtttgatcc	cgatgcgacc	cagtttatag	agttctctaa	actctctgat	tttgagctg	5940
ccctggatcc	tcctcttctc	atagcaaaac	ccaacaaagt	ccagcttatt	gccatggatc	6000
tgcccatggt	cagtgggtgac	cggatccact	gtcttgatat	tttatttgcc	tttaciaaagc	6060
gtgttttggg	tgagagtggga	gagatggatg	cccttcgaat	acagatggaa	gacagggtta	6120
tggtcatcaa	cccctccaaa	gtctcttatg	agcctattac	aaccactttg	aaacgtaaac	6180
aagaggaggt	gtctgccgct	atcatttcagc	gtaatttcag	atgttatctt	ttaaagcaaa	6240
ggttaaaaaa	tatatcaagt	aactataaca	aagaggcaat	aaaggggagg	attgacttac	6300
ctataaaaac	agacatgatt	attgacaaac	tgaatgggaa	ctccactcca	gaaaaaacag	6360
atgggagttc	ctctaccacc	tctcctcctt	cctatgatag	tgtaacaaaa	ccagacaagg	6420
aaaagtttga	gaaagacaaa	ccagaaaaag	aaagcaaagg	aaaagaggtc	agagaaaatc	6480
aaaagtaaaa	agaaacaaag	aattatcttt	gtgatcaatt	gtttacagcc	tatgaaggta	6540
aagtatatgt	gtcaactgga	cttcaagagg	aggtccatgc	caaactgact	gttttaacaa	6600
atactcatag	tcagtgccta	tacaagacag	tgaagtgacc	tctctgtcac	tgcaactctg	6660
tgaagcaggg	tatcaacatt	gacaagaggt	tgctgttttt	attaccagct	gacactgctg	6720
aggagaaacc	caatggctac	ctagactata	gggatagttg	tgcaaagtga	acattgtaac	6780
tacaccaaac	accttttagta	cagtccttgc	atccattcta	tttttaactt	ccatatctgc	6840
catattttta	caaaatttgt	tctagtgcac	ttccatggtc	cccaattcat	agttttattc	6900
taatgtctatg	tcactatttt	tgtaaattgag	gtttacgttg	aagaaacagt	atacaagaac	6960
cctgtctctc	aaatgatcag	acaaaggtgt	tttgccagag	agataaaaat	tttgctcaaa	7020
accagaaaaa	gaattgtaat	ggctacagtt	tcagttactt	ccattttcta	gatggcttta	7080
attttgaaaag	tatttttagtc	tgttatgttt	gtttctatct	gaacagttat	gtgcctgtaa	7140
agtctcctct	aatattttaa	ggattatttt	tatgcaaagt	attctgtttc	agcaagtgc	7200
aattttattc	taagtttcag	agctctatat	ttaattttagg	tcaaattgctt	tccaaaaagt	7260
aatctaataa	atccattcta	gaaaaatata	tctaaggtat	tgcttttagaa	tagttgttcc	7320
actttctgct	gcagtattgc	tttgccatct	tctgtctcca	gcaaagctga	tagtctatgt	7380
caattaaata	ccctatgtta	tgtaaattagt	tatttttatcc	tgtggtgcat	gtttgggcaa	7440
atatatatat	agcctgataa	acaacttcta	ttaaatcaaa	tatgtaccac	agtgtatgtg	7500
tcttttgcaa	gcttccaaca	gggatgtatc	ctgtatcatt	cattaaacat	agtttaaagg	7560
ctatcactaa	tgcatgttaa	tattgcctat	gctgctctat	tttactcaat	ccattcttca	7620
caagtcttgg	ttaaagaatg	tcacatattg	gtgatagaat	gaattcaacc	tgctctgtcc	7680
attatgtcaa	gcagaataat	ttgaagctat	ttacaaacac	ctttactttt	gcacttttaa	7740
ttcaacatga	gtatcatatg	gtatctctct	agatttcaag	gaaacacact	ggatactgcc	7800
tactgacaaa	acctattctt	catattttgc	taaaaatatg	tctaaaactt	gcgcaaatat	7860
aaataatgta	aaaatataat	caactttatt	tgtcagcatt	ttgtacataa	gaaaattatt	7920
ttcagggttg	tgacatcaca	atttatttta	ctttatgctt	ttgcttttga	tttttaattca	7980
caattccaaa	cttttgaatc	cataagattt	ttcaatggat	aatttcctaa	aataaaagtt	8040
agataatggg	ttttatggat	ttctttgtta	taatataatt	tctaccattc	caataggaga	8100
tacattggtc	aaacactcaa	acctagatca	ttttctacca	actatgggtg	cctcaatata	8160
accttttatt	catagatggt	tttttttatt	caacttttgt	agtattttacg	tatgcagact	8220
agtctttatt	ttttaattcc	tgctgcacta	aagctattac	aaatataaca	tggtactttgt	8280
tcttttttagc	catgaacaaa	gtggcaaaagt	tgtgcaatta	cctaacatga	tataaatttt	8340
tgtttttttgc	acaaaccaa	agtttaattgt	taattctttt	tacaaaacta	tttactgtag	8400
tgatttgaag	aactgcatgc	aggggaattgc	tatttgctaaa	aagaatgggtg	agctacgtca	8460
ttattgagcc	aaaagaataa	atttcatttt	ttattgcatt	tcacttattg	gcctctgggg	8520
ttttttgttt	ttgttttttg	ctgttggcag	tttaaaatat	atataattaa	taaaacctgt	8580
gcttgatctg	acatttgtat	acataaaaagt	ttacatgaat	tttacaacag	actagtgcac	8640
gattcaccaa	gcagtactac	agaacaaagg	caaataaaaa	gcagctttgt	gcacttttat	8700
gtgtgcaaag	gatcaagttc	acatgttcca	actttcaggt	ttgataataa	tagtagtaac	8760
cacctacaat	agctttcaat	ttcaattaac	tcccttggct	ataagcatct	aaactcatct	8820
tctttcaata	taattgatgc	tatctcctaa	ttacttgggtg	gctaataaat	gttacattct	8880
ttgttactta	aatgcattat	ataaactcct	atgtatacat	aaggtattaa	tgatatagtt	8940

```

attgagaatt tatattaact tttttttcaa gaacccttgg atttatgtga ggtcaaaacc 9000
aaactcttat tctcagtggg aaactccagt tgtaatgcat atttttaaag acaatttgga 9060
tctaaatatg tatttcataa ttctcccata ataaattata taagggtggct aa 9112

```

```

<210> 66
<211> 9112
<212> DNA
<213> Homo sapiens

```

```

<400> 66
accatagagt gaatctcaga acaggaagcg gaggcataag cagagaggat tctggaaagg 60
tctctttggt ttcttatcca cagagaaaga aagaaaaaaa attgtaacta atttgtaaac 120
ctctgtgggc aaaaaaaaaa aaaaaaaaaa aagctgaaca gctgcagagg aagacacggt 180
ataccctaac catcttggat gctgggcttt gttatgctgt aattcataag gctctgtttt 240
atcagagatt atggagcaag aaaactgaag ccaagccaca tcaaggtttg acagggatga 300
gatacctgtc aaggattcat agtagagtgg cttactggga aaggagcaaa gaatctcttc 360
tagggatatt gtaagaataa atgagataat tcacagaagg gacctggagc ttttccggaa 420
aaagggtgctg tgactatcta aggggaaaag ctgagagtct ggaactagcc tatcttccga 480
ggacttagag acaacagtat gggaatttca acgagacgtt tttactttct tttgaccaag 540
attcaaattc tttattccag cccttgataa gtaaataaga aggtaattcg tatgcaagaa 600
gctacacgta attaaatgtg caggatgaaa agatggcaca ggcaactgtt gtacccccag 660
gacctgaaag cttccgcctt tttactagag aatctcttgc tgctatcgaa aaacgtgctg 720
cagaagagaa agccaagaag cccaaaaagg aacaagataa tgatgatgag aacaaacca 780
agccaaatag tgacttgga gctggaaaga accttccatt tatttatgga gacattcctc 840
cagagatggg gtcagagccc ctggaggacc tggatcccta ctatatcaat aagaaaactt 900
ttatagtaat gaataaagga aaggcaattt cccgattcag tgccacctct gccttgata 960
ttttaactcc actaaacctt gttaggaaaa ttgctabsaa gatttttgga cattctttat 1020
tcagcatgct tatcatgtgc actattttga ccaactgtgt atttatgacc ttgagcaacc 1080
ctcctgactg gacaaagaat gtagagtaca cttactctgg aatctatacc tttgagtcac 1140
ttataaaaaa cttggcaaga gggttttgct tagaagattt tacgtttctt cgtgatccat 1200
ggaactggct ggatttcagt gtcattgtga tggcgatgt aacagaattt gtaagcctag 1260
gcaatgtttc agcccttcga actttcagag tcttgagagc tctgaaaact atttctgtaa 1320
tcccaggttt aaagaccatt gtgggggccc tgatccagtc ggtaaagaag ctttctgatg 1380
tgatgatcct gactgtgttc tgtctgagcg tgtttgctct cattgggctg cagctgttca 1440
tgggcaatct gaggaataaa tgtttgcagt ggcccccaag cgattctgct tttgaaacca 1500
acaccacttc ctactttaat ggcacaatgg attcaaatgg gacatttggt aatgtaacaa 1560
tgagcacatt taactggaag gattacattg gagatgacag tcacttttat gttttggatg 1620
ggcaaaaaga ccctttactc tgtggaaatg gctcagatgc aggccagtgt ccagaaggat 1680
acatctgtgt gaaggctggt cgaaacccca actatggcta cacaagcttt gacaccttta 1740
gctgggcttt cctgtctcta tttcgactca tgactcaaga ctactgggaa aatctttacc 1800
agttgacatt acgtgctgct gggaaaacat acatgatatt ttttgtcctg gtcattttct 1860
tgggctcatt ttatttggtg aatttgatcc tggtgtggtt ggccatggcc tatgaggggc 1920
agaatcaggc caccttgga gaagcagaac aaaaagaggc cgaatttcag cagatgctcg 1980
aacagcttaa aaagcaacag gaagaagctc aggcagttgc ggcagcatca gctgcttcaa 2040
gagatttcag tggaatagggt gggttaggag agctgttgga aagttcttca gaagcatcaa 2100
agttgagttc caaaagtgtc aaagaatgga ggaaccgaag gaagaaaaga agacagagag 2160
agcaccttga aggaacaac aaaggagaga gagacagctt tcccaaactc gaatctgaag 2220
acagcgtcaa aagaagcagc ttccttttct ccatggatgg aaacagactg accagtga 2280
aaaaattctg ctccctcat cagtctctct tgagtatccg tggtccctg ttttcccaa 2340
gacgcaatag caaaacaagc attttcagtt tcagaggtcg ggcaaaggat gttggatctg 2400
aaaatgactt tgctgatgat gaacacagca catttgaaag cagcgaaagc aggagagact 2460
cactgtttgt gccgcacaga catggagagc gacgcaacag taacggcacc accactgaaa 2520
cggaagtcag aaagagaagg ttaagctctt accagatttc aatggagatg ctggaggatt 2580
cctctggaag gcaaagagcc gtgagcatag ccagatttct gaccaacaca atggaagaac 2640
ttgaagaatc tagacagaaa tgtccgccat gctggtatag atttgccaat gtgttcttga 2700
tctgggactg ctgtgatgca tggttaaaag taaaacatct tgtgaattta attgttatgg 2760

```

atccatttgt	tgatcttgcc	atcactatth	gcattgtctt	aaataccctc	tttatggcca	2820
tggagcacta	ccccatgact	gagcaattca	gtagtgtgtt	gactgttaga	aacctgggtc	2880
ttactgggat	ttttacagca	gaaatggttc	tcaagatcat	tgccatggat	ccttattact	2940
atttccaaga	aggctggaat	atctttgatg	gaattattgt	cagcctcagt	ttaatggagc	3000
ttggtctgtc	aaatgtggag	ggattgtctg	tactgcgatc	attcagactg	cttagagttt	3060
tcaagttggc	aaaatcctgg	cccacactaa	atatgcta	taagatcatt	ggcaattctg	3120
tgggggctct	aggaaacctc	accttgggtg	tggccatcat	cgtcttcatt	tttgtctgtg	3180
tcggcatgca	gctctttggt	aagagctaca	aagaatgtgt	ctgcaagatc	aatgatgact	3240
gtacgctccc	acggtggcac	atgaacgact	tcttccactc	cttcctgatt	gtgttccgcg	3300
tgctgtgtgg	agagtggata	gagaccatgt	gggactgtat	ggaggtcgct	ggccaaacca	3360
tgtgccttat	tgttttcatg	ttggtcatgg	tcattggaaa	ccttgtggtt	ctgaacctct	3420
ttctggcctt	attgttgagt	tcatttagct	cagacaacct	tgctgctact	gatgatgaca	3480
atgaaatgaa	taatctgcag	attgcagtag	gaagaatgca	aaagggaatt	gattatgtga	3540
aaaataagat	gcgggagtgt	ttccaaaaag	ccttttttag	aaagccaaaa	gttatagaaa	3600
tccatgaagg	caataagata	gacagctgca	tgtccaataa	tactggaatt	gaaataagca	3660
aagagcttaa	ttatcttaga	gatgggaatg	gaaccaccag	tgggtgtagg	actggaagca	3720
gtgttgaaaa	atacgtaatc	gatgaaaatg	attatatgtc	attcataaac	aaccccagcc	3780
tcaccgtcac	agtgccaaat	gctgttggag	agtctgactt	tgaaaactta	aatactgaag	3840
agttcagcag	tgagtcagaa	ctagaagaaa	gcaaggagaa	attaaatgca	accagctcat	3900
ctgaaggaag	cacagttgat	gttgttctac	cccgagaagg	tgaacaagct	gaaactgaac	3960
ccgaagaaga	ccttaaaccg	gaagcttgtt	ttactgaagg	atgtattaaa	aagtttccat	4020
tctgtcaagt	aagtacagaa	gaaggcaaa	ggaagatctg	gtggaatctt	cgaaaaacct	4080
gctacagtat	tgttgagcac	aactgggttg	agactttcat	tgtgttcatg	atccttctca	4140
gtagtgggtc	attggccttt	gaagatatat	acattgaaca	gcgaaagact	atcaaaacca	4200
tgctagaata	tgctgacaaa	gtctttacct	atatattcat	tctggaaatg	cttctcaaat	4260
gggttgctta	tggatttcaa	acatatattc	ctaattgctg	gtgctggcta	gatttcttga	4320
tcgttgatgt	ttctttgggt	agcctggtag	ccaatgctct	tggctactca	gaactcgggtg	4380
ccatcaaatc	attacggaca	ttaagagctt	taagacctct	aagagcctta	tcccggtttg	4440
aaggcatgag	ggtggttggt	aatgctcttg	ttggagcaat	tccctctatc	atgaatgtgc	4500
tgttggtctg	tctcatcttc	tggttgatct	ttagcatcat	gggtgtgaat	ttgtttgctg	4560
gcaagtctta	ccactgtggt	aacatgacaa	cgggtaacat	gtttgacatt	agtgatgtta	4620
acaatttgag	tgactgtcag	gctcttggca	agcaagctcg	gtggaaaaac	gtgaaagtaa	4680
actttgataa	tgttggcgct	ggctatcttg	caactgcttc	agtggccaca	tttaaaggct	4740
ggatggatat	tatgtatgca	gctgttgatt	cacgagatgt	taaacttcag	cctgtatatg	4800
aagaaaatct	gtacatgtat	ttatactttg	tcatctttat	catctttggg	tcattcttca	4860
ctctgaatct	attcattggg	gtcatcatag	ataacttcaa	ccagcagaaa	aagaagtttg	4920
gaggtcaaga	catctttatg	acagaggaac	agaaaaata	ttacaatgca	atgaagaaac	4980
ttggatccaa	gaaacctcag	aaaccatac	ctcgcaccag	aaacaaattc	caaggaatgg	5040
tctttgattt	tgtaaccaga	caagtctttg	atatcagcat	catgatccct	atctgcctca	5100
acatggtcac	catgatgggt	gaaacggatg	accagggcaa	atacatgacc	ctagttttgt	5160
cccggatcaa	cctagtgttc	attgttctgt	tcaactggaga	atttgtgctg	aagctcgtct	5220
ccctcagaca	ctactacttc	actataggct	ggaacatctt	tgactttgtg	gtgggtgattc	5280
tctccattgt	aggatgtttt	ctggctgaga	tgatagaaaa	gtattttgtg	tcccctacct	5340
tgttccgagt	gatccgtctt	gccaggattg	gccgaatcct	acgtctgatc	aaaggagcaa	5400
aggggatccg	cacgtcgctc	tttgctttga	tgatgtccct	tccgtcggtg	tttaacatcg	5460
gcctcctgct	cttcctgggt	atgtttatct	atgccatctt	tgggatgtcc	aactttgcct	5520
atgttaaaaa	ggaagctgga	attgatgaca	tgttcaactt	tgagaccttt	ggcaacagca	5580
tgatctgctt	gttccaaatt	acaacctctg	ctggatggga	tggattgcta	gcacctattc	5640
ttaatagtgc	accacccgac	tgtgacctg	acacaattca	ccctggcagc	tcagtttaagg	5700
gagactgtgg	gaacccatct	gttgggattt	tcttttttgt	cagttacatc	atcatatcct	5760
tccgtgtgtg	ggtgaacagt	tacatcgctg	tcatcctgga	gaacttcagt	gttgctactg	5820
aagaaagtgc	agagcccctg	agtgaggatg	actttgagat	gttctatgag	gtttgggaaa	5880
agtttgatcc	cgatgcgacc	cagtttatag	agttctctaa	actctctgat	tttgagctg	5940
ccctggatcc	tcctcttctc	atagcaaaac	ccaacaaagt	ccagcttatt	gccatggatc	6000
tgcccatggg	cagtgggtgac	cggatccact	gtcttgatat	tttatttgcc	tttacaagc	6060
gtgttttggg	tgagagtggg	gagatggatg	cccttcgaat	acagatggaa	gacaggttta	6120
tggcatcaaa	cccctccaaa	gtctcttatg	agcctattac	aaccactttg	aaacgtaaac	6180

aagaggaggt	gtctgccgct	atcattcagc	gtaatttcag	atgttatctt	ttaaagcaaa	6240
ggttaaaaaa	tatatcaagt	aactataaca	aagaggcaat	aaaggggagg	attgacttac	6300
ctataaaaca	agacatgatt	attgacaaac	tgaatgggaa	ctccactcca	gaaaaaacag	6360
atgggaggtt	ctctaccacc	tctcctcctt	cctatgatag	tgtaacaaaa	ccagacaagg	6420
aaaagtttga	gaaagacaaa	ccagaaaaag	aaagcaaagg	aaaagagggtc	agagaaaatc	6480
aaaagtaaaa	agaaacaaag	aattatcttt	gtgatcaatt	gtttacagcc	tatgaaggta	6540
aagtatatgt	gtcaactgga	cttcaagagg	aggtccatgc	caaactgact	gttttaacaa	6600
atactcatag	tcagtgccta	tacaagacag	tgaagtgacc	tctctgtcac	tgcaactctg	6660
tgaagcaggg	tatcaacatt	gacaagaggt	tgctgttttt	attaccagct	gacactgctg	6720
aggagaaacc	caatggctac	ctagactata	gggatagttg	tgcaaagtga	acattgtaac	6780
tacaccaaac	accttttagta	cagtccttgc	atccattcta	tttttaactt	ccatatctgc	6840
catattttta	caaaatttgt	tctagtgcac	ttccatggtc	cccaattcat	agttttattca	6900
taatgctatg	tcactatttt	tgtaaatgag	gtttacgttg	aagaaacagt	atacaagaac	6960
cctgtctctc	aaatgatcag	acaaagggtg	tttgccagag	agataaaaatt	tttgctcaaa	7020
accagaaaaa	gaattgtaat	ggctacagtt	tcagttactt	ccattttcta	gatggcttta	7080
attttgaaag	tattttagtc	gtttatgttt	gtttctatct	gaacagttat	gtgcctgtaa	7140
agtctcctct	aatattttaa	ggattatttt	tatgcaaagt	attctgtttc	agcaagtgca	7200
aattttatct	taagtttcag	agctctatat	ttaatctagg	tcaaagtctt	tccaaaaagt	7260
aatctaataa	atccattcta	gaaaaatata	tctaaagtat	tgcttttagaa	tagttgttcc	7320
actttctgct	gcagtattgc	tttgccatct	tctgctctca	gcaaagctga	tagtctatgt	7380
caattaaata	ccctatgtta	tgtaaatagt	tattttatcc	tgtgggtgcat	gtttgggcaa	7440
atataatat	agcctgataa	acaacttcta	ttaaatcaaa	tatgtaccac	agtgtatgtg	7500
tcttttgcaa	gcttccaaca	gggatgtatc	ctgtatcatt	cattaaacat	agtttaaagg	7560
ctatcactaa	tgcatgttaa	tattgcctat	gctgctctat	tttactcaat	ccattcttca	7620
caagtcttgg	ttaaagaatg	tcacatattg	gtgatagaat	gaattcaacc	tgctctgtcc	7680
attatgtcaa	gcagaataat	ttgaagctat	ttacaaacac	ctttactttt	gcacttttaa	7740
ttcaacatga	gtatcatatg	gtatctctct	agatttcaag	gaaacacact	ggatactgcc	7800
tactgacaaa	acctattctt	catattttgc	taaaaatatg	tctaaaactt	gcgcaaatat	7860
aaataatgta	aaaatataat	caacttttatt	tgtcagcatt	ttgtacataa	gaaaattatt	7920
ttcagggttga	tgacatcaca	atttatttta	ctttatgctt	ttgcttttga	tttttaatca	7980
caattccaaa	cttttgaatc	cataagattt	ttcaatggat	aatttcctaa	aataaaaagt	8040
agataatggg	ttttatggat	ttctttgtta	taatatattt	tctaccattc	caataggaga	8100
tacattgggtc	aaacactcaa	acctagatca	ttttctacca	actatgggtg	cctcaatata	8160
acctttttatt	catagatgtt	tttttttatt	caacttttgt	agtatttacg	tatgcagact	8220
agtcttattt	ttttaattcc	tgctgcacta	aagctattac	aaatataaca	tggaactttgt	8280
tcttttttagc	catgaacaaa	gtggc aaagt	tgtgcaatta	cctaacatga	tataaatttt	8340
tgtttttttgc	acaaaccaa	agtttaattgt	taattctttt	tacaaaacta	tttactgtag	8400
tgtattgaag	aactgcatgc	aggg aattgc	tattgctaaa	aagaatgggtg	agctacgtca	8460
ttattgagcc	aaaagaataa	atttcatttt	ttattgcatt	tcacttattg	gcctctgggg	8520
ttttttgttt	ttgttttttg	ctgttggcag	tttaaaatat	atataattaa	taaaacctgt	8580
gcttgatctg	acatttgtat	acataaaagt	ttacatgaat	tttacaacag	actagtgcac	8640
gattcaccaa	gcagtactac	agaacaaagg	caaatgaaaa	gcagctttgt	gcacttttat	8700
gtgtgcaaag	gatcaagttc	acatgttcca	actttcaggt	ttgataataa	tagtagtaac	8760
cacctacaat	agctttcaat	ttcaattaac	tcccttggct	ataagcatct	aaactcatct	8820
tctttcaata	taattgatgc	tatctcctaa	ttacttgggtg	gctaataaat	gttacattct	8880
ttgttactta	aatgcattat	ataaactcct	atgtatacat	aaggattata	tgatatagtt	8940
attgagaatt	tatattaact	tttttttcaa	gaacccttgg	atttatgtga	ggc aaaaacc	9000
aaactcttat	tctcagtggg	aaactccagt	tgtaatgcat	atttttaaag	acaatttggg	9060
tctaaatatg	tatttccata	ttctcccata	ataaattata	taagggtggct	aa	9112

<210> 67

<211> 1951

<212> PRT

<213> Homo sapiens

<400> 67

Met Ala Gln Ala Leu Leu Val Pro Pro Gly Pro Glu Ser Phe Arg Leu
1 5 10 15
Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Lys Arg Ala Ala Glu Glu
20 25 30
Lys Ala Lys Lys Pro Lys Lys Glu Gln Asp Asn Asp Asp Glu Asn Lys
35 40 45
Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Asn Leu Pro Phe Ile
50 55 60
Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Glu Pro Leu Glu Asp Leu
65 70 75 80
Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe Ile Val Met Asn Lys Gly
85 90 95
Lys Ala Ile Ser Arg Phe Ser Ala Thr Ser Ala Leu Tyr Ile Leu Thr
100 105 110
Pro Leu Asn Pro Val Arg Lys Ile Ala Xaa Lys Ile Leu Val His Ser
115 120 125
Leu Phe Ser Met Leu Ile Met Cys Thr Ile Leu Thr Asn Cys Val Phe
130 135 140
Met Thr Leu Ser Asn Pro Pro Asp Trp Thr Lys Asn Val Glu Tyr Thr
145 150 155 160
Phe Thr Gly Ile Tyr Thr Phe Glu Ser Leu Ile Lys Ile Leu Ala Arg
165 170 175
Gly Phe Cys Leu Glu Asp Phe Thr Phe Leu Arg Asp Pro Trp Asn Trp
180 185 190
Leu Asp Phe Ser Val Ile Val Met Ala Tyr Val Thr Glu Phe Val Asp
195 200 205
Leu Gly Asn Val Ser Ala Leu Arg Thr Phe Arg Val Leu Arg Ala Leu
210 215 220
Lys Thr Ile Ser Val Ile Pro Gly Leu Lys Thr Ile Val Gly Ala Leu
225 230 235 240
Ile Gln Ser Val Lys Lys Leu Ser Asp Val Met Ile Leu Thr Val Phe
245 250 255
Cys Leu Ser Val Phe Ala Leu Ile Gly Leu Gln Leu Phe Met Gly Asn
260 265 270
Leu Arg Asn Lys Cys Leu Gln Trp Pro Pro Ser Asp Ser Ala Phe Glu
275 280 285
Thr Asn Thr Thr Ser Tyr Phe Asn Gly Thr Met Asp Ser Asn Gly Thr
290 295 300

Phe Val Asn Val Thr Met Ser Thr Phe Asn Trp Lys Asp Tyr Ile Gly
 305 310 315 320
 Asp Asp Ser His Phe Tyr Val Leu Asp Gly Gln Lys Asp Pro Leu Leu
 325 330 335
 Cys Gly Asn Gly Ser Asp Ala Gly Gln Cys Pro Glu Gly Tyr Ile Cys
 340 345 350
 Val Lys Ala Gly Arg Asn Pro Asn Tyr Gly Tyr Thr Ser Phe Asp Thr
 355 360 365
 Phe Ser Trp Ala Phe Leu Ser Leu Phe Arg Leu Met Thr Gln Asp Tyr
 370 375 380
 Trp Glu Asn Leu Tyr Gln Leu Thr Leu Arg Ala Ala Gly Lys Thr Tyr
 385 390 395 400
 Met Ile Phe Phe Val Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu Val
 405 410 415
 Asn Leu Ile Leu Ala Val Val Ala Met Ala Tyr Glu Gly Gln Asn Gln
 420 425 430
 Ala Thr Leu Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln Met
 435 440 445
 Leu Glu Gln Leu Lys Lys Gln Gln Glu Glu Ala Gln Ala Val Ala Ala
 450 455 460
 Ala Ser Ala Ala Ser Arg Asp Phe Ser Gly Ile Gly Gly Leu Gly Glu
 465 470 475 480
 Leu Leu Glu Ser Ser Ser Glu Ala Ser Lys Leu Ser Ser Lys Ser Ala
 485 490 495
 Lys Glu Trp Arg Asn Arg Arg Lys Lys Arg Arg Gln Arg Glu His Leu
 500 505 510
 Glu Gly Asn Asn Lys Gly Glu Arg Asp Ser Phe Pro Lys Ser Glu Ser
 515 520 525
 Glu Asp Ser Val Lys Arg Ser Ser Phe Leu Phe Ser Met Asp Gly Asn
 530 535 540
 Arg Leu Thr Ser Asp Lys Lys Phe Cys Ser Pro His Gln Ser Leu Leu
 545 550 555 560
 Ser Ile Arg Gly Ser Leu Phe Ser Pro Arg Arg Asn Ser Lys Thr Ser
 565 570 575
 Ile Phe Ser Phe Arg Gly Arg Ala Lys Asp Val Gly Ser Glu Asn Asp
 580 585 590
 Phe Ala Asp Asp Glu His Ser Thr Phe Glu Asp Ser Glu Ser Arg Arg
 595 600 605

Asp Ser Leu Phe Val Pro His Arg His Gly Glu Arg Arg Asn Ser Asn
 610 615 620
 Gly Thr Thr Thr Glu Thr Glu Val Arg Lys Arg Arg Leu Ser Ser Tyr
 625 630 635 640
 Gln Ile Ser Met Glu Met Leu Glu Asp Ser Ser Gly Arg Gln Arg Ala
 645 650 655
 Val Ser Ile Ala Ser Ile Leu Thr Asn Thr Met Glu Glu Leu Glu Glu
 660 665 670
 Ser Arg Gln Lys Cys Pro Pro Cys Trp Tyr Arg Phe Ala Asn Val Phe
 675 680 685
 Leu Ile Trp Asp Cys Cys Asp Ala Trp Leu Lys Val Lys His Leu Val
 690 695 700
 Asn Leu Ile Val Met Asp Pro Phe Val Asp Leu Ala Ile Thr Ile Cys
 705 710 715 720
 Ile Val Leu Asn Thr Leu Phe Met Ala Met Glu His Tyr Pro Met Thr
 725 730 735
 Glu Gln Phe Ser Ser Val Leu Thr Val Gly Asn Leu Val Phe Thr Gly
 740 745 750
 Ile Phe Thr Ala Glu Met Val Leu Lys Ile Ile Ala Met Asp Pro Tyr
 755 760 765
 Tyr Tyr Phe Gln Glu Gly Trp Asn Ile Phe Asp Gly Ile Ile Val Ser
 770 775 780
 Leu Ser Leu Met Glu Leu Gly Leu Ser Asn Val Glu Gly Leu Ser Val
 785 790 795 800
 Leu Arg Ser Phe Arg Leu Leu Arg Val Phe Lys Leu Ala Lys Ser Trp
 805 810 815
 Pro Thr Leu Asn Met Leu Ile Lys Ile Ile Gly Asn Ser Val Gly Ala
 820 825 830
 Leu Gly Asn Leu Thr Leu Val Leu Ala Ile Ile Val Phe Ile Phe Ala
 835 840 845
 Val Val Gly Met Gln Leu Phe Gly Lys Ser Tyr Lys Glu Cys Val Cys
 850 855 860
 Lys Ile Asn Asp Asp Cys Thr Leu Pro Arg Trp His Met Asn Asp Phe
 865 870 875 880
 Phe His Ser Phe Leu Ile Val Phe Arg Val Leu Cys Gly Glu Trp Ile
 885 890 895
 Glu Thr Met Trp Asp Cys Met Glu Val Ala Gly Gln Thr Met Cys Leu
 900 905 910

Ile Val Phe Met Leu Val Met Val Ile Gly Asn Leu Val Val Leu Asn
 915 920 925
 Leu Phe Leu Ala Leu Leu Leu Ser Ser Phe Ser Ser Asp Asn Leu Ala
 930 935 940
 Ala Thr Asp Asp Asp Asn Glu Met Asn Asn Leu Gln Ile Ala Val Gly
 945 950 955 960
 Arg Met Gln Lys Gly Ile Asp Tyr Val Lys Asn Lys Met Arg Glu Cys
 965 970 975
 Phe Gln Lys Ala Phe Phe Arg Lys Pro Lys Val Ile Glu Ile His Glu
 980 985 990
 Gly Asn Lys Ile Asp Ser Cys Met Ser Asn Asn Thr Gly Ile Glu Ile
 995 1000 1005
 Ser Lys Glu Leu Asn Tyr Leu Arg Asp Gly Asn Gly Thr Thr Ser Gly
 1010 1015 1020
 Val Gly Thr Gly Ser Ser Val Glu Lys Tyr Val Ile Asp Glu Asn Asp
 1025 1030 1035 1040
 Tyr Met Ser Phe Ile Asn Asn Pro Ser Leu Thr Val Thr Val Pro Ile
 1045 1050 1055
 Ala Val Gly Glu Ser Asp Phe Glu Asn Leu Asn Thr Glu Glu Phe Ser
 1060 1065 1070
 Ser Glu Ser Glu Leu Glu Glu Ser Lys Glu Lys Leu Asn Ala Thr Ser
 1075 1080 1085
 Ser Ser Glu Gly Ser Thr Val Asp Val Val Leu Pro Arg Glu Gly Glu
 1090 1095 1100
 Gln Ala Glu Thr Glu Pro Glu Glu Asp Leu Lys Pro Glu Ala Cys Phe
 1105 1110 1115 1120
 Thr Glu Gly Cys Ile Lys Lys Phe Pro Phe Cys Gln Val Ser Thr Glu
 1125 1130 1135
 Glu Gly Lys Gly Lys Ile Trp Trp Asn Leu Arg Lys Thr Cys Tyr Ser
 1140 1145 1150
 Ile Val Glu His Asn Trp Phe Glu Thr Phe Ile Val Phe Met Ile Leu
 1155 1160 1165
 Leu Ser Ser Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile Glu Gln Arg
 1170 1175 1180
 Lys Thr Ile Lys Thr Met Leu Glu Tyr Ala Asp Lys Val Phe Thr Tyr
 1185 1190 1195 1200
 Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr Gly Phe Gln
 1205 1210 1215

Thr Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile Val Asp
 1220 1225 1230
 Val Ser Leu Val Ser Leu Val Ala Asn Ala Leu Gly Tyr Ser Glu Leu
 1235 1240 1245
 Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu Arg Pro Leu Arg
 1250 1255 1260
 Ala Leu Ser Arg Phe Glu Gly Met Arg Val Val Val Asn Ala Leu Val
 1265 1270 1275 1280
 Gly Ala Ile Pro Ser Ile Met Asn Val Leu Leu Val Cys Leu Ile Phe
 1285 1290 1295
 Trp Leu Ile Phe Ser Ile Met Gly Val Asn Leu Phe Ala Gly Lys Phe
 1300 1305 1310
 Tyr His Cys Val Asn Met Thr Thr Gly Asn Met Phe Asp Ile Ser Asp
 1315 1320 1325
 Val Asn Asn Leu Ser Asp Cys Gln Ala Leu Gly Lys Gln Ala Arg Trp
 1330 1335 1340
 Lys Asn Val Lys Val Asn Phe Asp Asn Val Gly Ala Gly Tyr Leu Ala
 1345 1350 1355 1360
 Leu Leu Gln Val Ala Thr Phe Lys Gly Trp Met Asp Ile Met Tyr Ala
 1365 1370 1375
 Ala Val Asp Ser Arg Asp Val Lys Leu Gln Pro Val Tyr Glu Glu Asn
 1380 1385 1390
 Leu Tyr Met Tyr Leu Tyr Phe Val Ile Phe Ile Ile Phe Gly Ser Phe
 1395 1400 1405
 Phe Thr Leu Asn Leu Phe Ile Gly Val Ile Ile Asp Asn Phe Asn Gln
 1410 1415 1420
 Gln Lys Lys Lys Phe Gly Gly Gln Asp Ile Phe Met Thr Glu Glu Gln
 1425 1430 1435 1440
 Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu Gly Ser Lys Lys Pro Gln
 1445 1450 1455
 Lys Pro Ile Pro Arg Pro Ala Asn Lys Phe Gln Gly Met Val Phe Asp
 1460 1465 1470
 Phe Val Thr Arg Gln Val Phe Asp Ile Ser Ile Met Ile Leu Ile Cys
 1475 1480 1485
 Leu Asn Met Val Thr Met Met Val Glu Thr Asp Asp Gln Gly Lys Tyr
 1490 1495 1500
 Met Thr Leu Val Leu Ser Arg Ile Asn Leu Val Phe Ile Val Leu Phe
 1505 1510 1515 1520

Thr Gly Glu Phe Val Leu Lys Leu Val Ser Leu Arg His Tyr Tyr Phe
 1525 1530 1535
 Thr Ile Gly Trp Asn Ile Phe Asp Phe Val Val Val Ile Leu Ser Ile
 1540 1545 1550
 Val Gly Met Phe Leu Ala Glu Met Ile Glu Lys Tyr Phe Val Ser Pro
 1555 1560 1565
 Thr Leu Phe Arg Val Ile Arg Leu Ala Arg Ile Gly Arg Ile Leu Arg
 1570 1575 1580
 Leu Ile Lys Gly Ala Lys Gly Ile Arg Thr Leu Leu Phe Ala Leu Met
 1585 1590 1595 1600
 Met Ser Leu Pro Ala Leu Phe Asn Ile Gly Leu Leu Leu Phe Leu Val
 1605 1610 1615
 Met Phe Ile Tyr Ala Ile Phe Gly Met Ser Asn Phe Ala Tyr Val Lys
 1620 1625 1630
 Lys Glu Ala Gly Ile Asp Asp Met Phe Asn Phe Glu Thr Phe Gly Asn
 1635 1640 1645
 Ser Met Ile Cys Leu Phe Gln Ile Thr Thr Ser Ala Gly Trp Asp Gly
 1650 1655 1660
 Leu Leu Ala Pro Ile Leu Asn Ser Ala Pro Pro Asp Cys Asp Pro Asp
 1665 1670 1675 1680
 Thr Ile His Pro Gly Ser Ser Val Lys Gly Asp Cys Gly Asn Pro Ser
 1685 1690 1695
 Val Gly Ile Phe Phe Phe Val Ser Tyr Ile Ile Ile Ser Phe Leu Val
 1700 1705 1710
 Val Val Asn Ser Tyr Ile Ala Val Ile Leu Glu Asn Phe Ser Val Ala
 1715 1720 1725
 Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu Asp Asp Phe Glu Met Phe
 1730 1735 1740
 Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp Ala Thr Gln Phe Ile Glu
 1745 1750 1755 1760
 Phe Ser Lys Leu Ser Asp Phe Ala Ala Ala Leu Asp Pro Pro Leu Leu
 1765 1770 1775
 Ile Ala Lys Pro Asn Lys Val Gln Leu Ile Ala Met Asp Leu Pro Met
 1780 1785 1790
 Val Ser Gly Asp Arg Ile His Cys Leu Asp Ile Leu Phe Ala Phe Thr
 1795 1800 1805
 Lys Arg Val Leu Gly Glu Ser Gly Glu Met Asp Ala Leu Arg Ile Gln
 1810 1815 1820

Met Glu Asp Arg Phe Met Ala Ser Asn Pro Ser Lys Val Ser Tyr Glu
 1825 1830 1835 1840

Pro Ile Thr Thr Thr Leu Lys Arg Lys Gln Glu Glu Val Ser Ala Ala
 1845 1850 1855

Ile Ile Gln Arg Asn Phe Arg Cys Tyr Leu Leu Lys Gln Arg Leu Lys
 1860 1865 1870

Asn Ile Ser Ser Asn Tyr Asn Lys Glu Ala Ile Lys Gly Arg Ile Asp
 1875 1880 1885

Leu Pro Ile Lys Gln Asp Met Ile Ile Asp Lys Leu Asn Gly Asn Ser
 1890 1895 1900

Thr Pro Glu Lys Thr Asp Gly Ser Ser Ser Thr Thr Ser Pro Pro Ser
 1905 1910 1915 1920

Tyr Asp Ser Val Thr Lys Pro Asp Lys Glu Lys Phe Glu Lys Asp Lys
 1925 1930 1935

Pro Glu Lys Glu Ser Lys Gly Lys Glu Val Arg Glu Asn Gln Lys
 1940 1945 1950

<210> 68
 <211> 1951
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Ala Gln Ala Leu Leu Val Pro Pro Gly Pro Glu Ser Phe Arg Leu
 1 5 10 15
 Phe Thr Arg Glu Ser Leu Ala Ala Ile Glu Lys Arg Ala Ala Glu Glu
 20 25 30
 Lys Ala Lys Lys Pro Lys Lys Glu Gln Asp Asn Asp Asp Glu Asn Lys
 35 40 45
 Pro Lys Pro Asn Ser Asp Leu Glu Ala Gly Lys Asn Leu Pro Phe Ile
 50 55 60
 Tyr Gly Asp Ile Pro Pro Glu Met Val Ser Glu Pro Leu Glu Asp Leu
 65 70 75 80
 Asp Pro Tyr Tyr Ile Asn Lys Lys Thr Phe Ile Val Met Asn Lys Gly
 85 90 95
 Lys Ala Ile Ser Arg Phe Ser Ala Thr Ser Ala Leu Tyr Ile Leu Thr
 100 105 110
 Pro Leu Asn Pro Val Arg Lys Ile Ala Xaa Lys Ile Leu Val His Ser
 115 120 125
 Leu Phe Ser Met Leu Ile Met Cys Thr Ile Leu Thr Asn Cys Val Phe
 130 135 140

Met Thr Leu Ser Asn Pro Pro Asp Trp Thr Lys Asn Val Glu Tyr Thr
 145 150 155 160
 Phe Thr Gly Ile Tyr Thr Phe Glu Ser Leu Ile Lys Ile Leu Ala Arg
 165 170 175
 Gly Phe Cys Leu Glu Asp Phe Thr Phe Leu Arg Asp Pro Trp Asn Trp
 180 185 190
 Leu Asp Phe Ser Val Ile Val Met Ala Tyr Val Thr Glu Phe Val Ser
 195 200 205
 Leu Gly Asn Val Ser Ala Leu Arg Thr Phe Arg Val Leu Arg Ala Leu
 210 215 220
 Lys Thr Ile Ser Val Ile Pro Gly Leu Lys Thr Ile Val Gly Ala Leu
 225 230 235 240
 Ile Gln Ser Val Lys Lys Leu Ser Asp Val Met Ile Leu Thr Val Phe
 245 250 255
 Cys Leu Ser Val Phe Ala Leu Ile Gly Leu Gln Leu Phe Met Gly Asn
 260 265 270
 Leu Arg Asn Lys Cys Leu Gln Trp Pro Pro Ser Asp Ser Ala Phe Glu
 275 280 285
 Thr Asn Thr Thr Ser Tyr Phe Asn Gly Thr Met Asp Ser Asn Gly Thr
 290 295 300
 Phe Val Asn Val Thr Met Ser Thr Phe Asn Trp Lys Asp Tyr Ile Gly
 305 310 315 320
 Asp Asp Ser His Phe Tyr Val Leu Asp Gly Gln Lys Asp Pro Leu Leu
 325 330 335
 Cys Gly Asn Gly Ser Asp Ala Gly Gln Cys Pro Glu Gly Tyr Ile Cys
 340 345 350
 Val Lys Ala Gly Arg Asn Pro Asn Tyr Gly Tyr Thr Ser Phe Asp Thr
 355 360 365
 Phe Ser Trp Ala Phe Leu Ser Leu Phe Arg Leu Met Thr Gln Asp Tyr
 370 375 380
 Trp Glu Asn Leu Tyr Gln Leu Thr Leu Arg Ala Ala Gly Lys Thr Tyr
 385 390 395 400
 Met Ile Phe Phe Val Leu Val Ile Phe Leu Gly Ser Phe Tyr Leu Val
 405 410 415
 Asn Leu Ile Leu Ala Val Val Ala Met Ala Tyr Glu Gly Gln Asn Gln
 420 425 430
 Ala Thr Leu Glu Glu Ala Glu Gln Lys Glu Ala Glu Phe Gln Gln Met
 435 440 445

Leu Glu Gln Leu Lys Lys Gln Gln Glu Glu Ala Gln Ala Val Ala Ala
 450 455 460
 Ala Ser Ala Ala Ser Arg Asp Phe Ser Gly Ile Gly Gly Leu Gly Glu
 465 470 475 480
 Leu Leu Glu Ser Ser Ser Glu Ala Ser Lys Leu Ser Ser Lys Ser Ala
 485 490 495
 Lys Glu Trp Arg Asn Arg Arg Lys Lys Arg Arg Gln Arg Glu His Leu
 500 505 510
 Glu Gly Asn Asn Lys Gly Glu Arg Asp Ser Phe Pro Lys Ser Glu Ser
 515 520 525
 Glu Asp Ser Val Lys Arg Ser Ser Phe Leu Phe Ser Met Asp Gly Asn
 530 535 540
 Arg Leu Thr Ser Asp Lys Lys Phe Cys Ser Pro His Gln Ser Leu Leu
 545 550 555 560
 Ser Ile Arg Gly Ser Leu Phe Ser Pro Arg Arg Asn Ser Lys Thr Ser
 565 570 575
 Ile Phe Ser Phe Arg Gly Arg Ala Lys Asp Val Gly Ser Glu Asn Asp
 580 585 590
 Phe Ala Asp Asp Glu His Ser Thr Phe Glu Asp Ser Glu Ser Arg Arg
 595 600 605
 Asp Ser Leu Phe Val Pro His Arg His Gly Glu Arg Arg Asn Ser Asn
 610 615 620
 Gly Thr Thr Thr Glu Thr Glu Val Arg Lys Arg Arg Leu Ser Ser Tyr
 625 630 635 640
 Gln Ile Ser Met Glu Met Leu Glu Asp Ser Ser Gly Arg Gln Arg Ala
 645 650 655
 Val Ser Ile Ala Ser Ile Leu Thr Asn Thr Met Glu Glu Leu Glu Glu
 660 665 670
 Ser Arg Gln Lys Cys Pro Pro Cys Trp Tyr Arg Phe Ala Asn Val Phe
 675 680 685
 Leu Ile Trp Asp Cys Cys Asp Ala Trp Leu Lys Val Lys His Leu Val
 690 695 700
 Asn Leu Ile Val Met Asp Pro Phe Val Asp Leu Ala Ile Thr Ile Cys
 705 710 715 720
 Ile Val Leu Asn Thr Leu Phe Met Ala Met Glu His Tyr Pro Met Thr
 725 730 735
 Glu Gln Phe Ser Ser Val Leu Thr Val Gly Asn Leu Val Phe Thr Gly
 740 745 750

Ile Phe Thr Ala Glu Met Val Leu Lys Ile Ile Ala Met Asp Pro Tyr
 755 760 765
 Tyr Tyr Phe Gln Glu Gly Trp Asn Ile Phe Asp Gly Ile Ile Val Ser
 770 775 780
 Leu Ser Leu Met Glu Leu Gly Leu Ser Asn Val Glu Gly Leu Ser Val
 785 790 795 800
 Leu Arg Ser Phe Arg Leu Leu Arg Val Phe Lys Leu Ala Lys Ser Trp
 805 810 815
 Pro Thr Leu Asn Met Leu Ile Lys Ile Ile Gly Asn Ser Val Gly Ala
 820 825 830
 Leu Gly Asn Leu Thr Leu Val Leu Ala Ile Ile Val Phe Ile Phe Ala
 835 840 845
 Val Val Gly Met Gln Leu Phe Gly Lys Ser Tyr Lys Glu Cys Val Cys
 850 855 860
 Lys Ile Asn Asp Asp Cys Thr Leu Pro Arg Trp His Met Asn Asp Phe
 865 870 875 880
 Phe His Ser Phe Leu Ile Val Phe Arg Val Leu Cys Gly Glu Trp Ile
 885 890 895
 Glu Thr Met Trp Asp Cys Met Glu Val Ala Gly Gln Thr Met Cys Leu
 900 905 910
 Ile Val Phe Met Leu Val Met Val Ile Gly Asn Leu Val Val Leu Asn
 915 920 925
 Leu Phe Leu Ala Leu Leu Leu Ser Ser Phe Ser Ser Asp Asn Leu Ala
 930 935 940
 Ala Thr Asp Asp Asp Asn Glu Met Asn Asn Leu Gln Ile Ala Val Gly
 945 950 955 960
 Arg Met Gln Lys Gly Ile Asp Tyr Val Lys Asn Lys Met Arg Glu Cys
 965 970 975
 Phe Gln Lys Ala Phe Phe Arg Lys Pro Lys Val Ile Glu Ile His Glu
 980 985 990
 Gly Asn Lys Ile Asp Ser Cys Met Ser Asn Asn Thr Gly Ile Glu Ile
 995 1000 1005
 Ser Lys Glu Leu Asn Tyr Leu Arg Asp Gly Asn Gly Thr Thr Ser Gly
 1010 1015 1020
 Val Gly Thr Gly Ser Ser Val Glu Lys Tyr Val Ile Asp Glu Asn Asp
 1025 1030 1035 1040
 Tyr Met Ser Phe Ile Asn Asn Pro Ser Leu Thr Val Thr Val Pro Ile
 1045 1050 1055

Ala Val Gly Glu Ser Asp Phe Glu Asn Leu Asn Thr Glu Glu Phe Ser
 1060 1065 1070
 Ser Glu Ser Glu Leu Glu Glu Ser Lys Glu Lys Leu Asn Ala Thr Ser
 1075 1080 1085
 Ser Ser Glu Gly Ser Thr Val Asp Val Val Leu Pro Arg Glu Gly Glu
 1090 1095 1100
 Gln Ala Glu Thr Glu Pro Glu Glu Asp Leu Lys Pro Glu Ala Cys Phe
 1105 1110 1115 1120
 Thr Glu Gly Cys Ile Lys Lys Phe Pro Phe Cys Gln Val Ser Thr Glu
 1125 1130 1135
 Glu Gly Lys Gly Lys Ile Trp Trp Asn Leu Arg Lys Thr Cys Tyr Ser
 1140 1145 1150
 Ile Val Glu His Asn Trp Phe Glu Thr Phe Ile Val Phe Met Ile Leu
 1155 1160 1165
 Leu Ser Ser Gly Ala Leu Ala Phe Glu Asp Ile Tyr Ile Glu Gln Arg
 1170 1175 1180
 Lys Thr Ile Lys Thr Met Leu Glu Tyr Ala Asp Lys Val Phe Thr Tyr
 1185 1190 1195 1200
 Ile Phe Ile Leu Glu Met Leu Leu Lys Trp Val Ala Tyr Gly Phe Gln
 1205 1210 1215
 Thr Tyr Phe Thr Asn Ala Trp Cys Trp Leu Asp Phe Leu Ile Val Asp
 1220 1225 1230
 Val Ser Leu Val Ser Leu Val Ala Asn Ala Leu Gly Tyr Ser Glu Leu
 1235 1240 1245
 Gly Ala Ile Lys Ser Leu Arg Thr Leu Arg Ala Leu Arg Pro Leu Arg
 1250 1255 1260
 Ala Leu Ser Arg Phe Glu Gly Met Arg Val Val Val Asn Ala Leu Val
 1265 1270 1275 1280
 Gly Ala Ile Pro Ser Ile Met Asn Val Leu Leu Val Cys Leu Ile Phe
 1285 1290 1295
 Trp Leu Ile Phe Ser Ile Met Gly Val Asn Leu Phe Ala Gly Lys Phe
 1300 1305 1310
 Tyr His Cys Val Asn Met Thr Thr Gly Asn Met Phe Asp Ile Ser Asp
 1315 1320 1325
 Val Asn Asn Leu Ser Asp Cys Gln Ala Leu Gly Lys Gln Ala Arg Trp
 1330 1335 1340
 Lys Asn Val Lys Val Asn Phe Asp Asn Val Gly Ala Gly Tyr Leu Ala
 1345 1350 1355 1360

Leu Leu Gln Val Ala Thr Phe Lys Gly Trp Met Asp Ile Met Tyr Ala
 1365 1370 1375
 Ala Val Asp Ser Arg Asp Val Lys Leu Gln Pro Val Tyr Glu Glu Asn
 1380 1385 1390
 Leu Tyr Met Tyr Leu Tyr Phe Val Ile Phe Ile Ile Phe Gly Ser Phe
 1395 1400 1405
 Phe Thr Leu Asn Leu Phe Ile Gly Val Ile Ile Asp Asn Phe Asn Gln
 1410 1415 1420
 Gln Lys Lys Lys Phe Gly Gly Gln Asp Ile Phe Met Thr Glu Glu Gln
 1425 1430 1435 1440
 Lys Lys Tyr Tyr Asn Ala Met Lys Lys Leu Gly Ser Lys Lys Pro Gln
 1445 1450 1455
 Lys Pro Ile Pro Arg Pro Ala Asn Lys Phe Gln Gly Met Val Phe Asp
 1460 1465 1470
 Phe Val Thr Arg Gln Val Phe Asp Ile Ser Ile Met Ile Leu Ile Cys
 1475 1480 1485
 Leu Asn Met Val Thr Met Met Val Glu Thr Asp Asp Gln Gly Lys Tyr
 1490 1495 1500
 Met Thr Leu Val Leu Ser Arg Ile Asn Leu Val Phe Ile Val Leu Phe
 1505 1510 1515 1520
 Thr Gly Glu Phe Val Leu Lys Leu Val Ser Leu Arg His Tyr Tyr Phe
 1525 1530 1535
 Thr Ile Gly Trp Asn Ile Phe Asp Phe Val Val Val Ile Leu Ser Ile
 1540 1545 1550
 Val Gly Met Phe Leu Ala Glu Met Ile Glu Lys Tyr Phe Val Ser Pro
 1555 1560 1565
 Thr Leu Phe Arg Val Ile Arg Leu Ala Arg Ile Gly Arg Ile Leu Arg
 1570 1575 1580
 Leu Ile Lys Gly Ala Lys Gly Ile Arg Thr Leu Leu Phe Ala Leu Met
 1585 1590 1595 1600
 Met Ser Leu Pro Ala Leu Phe Asn Ile Gly Leu Leu Leu Phe Leu Val
 1605 1610 1615
 Met Phe Ile Tyr Ala Ile Phe Gly Met Ser Asn Phe Ala Tyr Val Lys
 1620 1625 1630
 Lys Glu Ala Gly Ile Asp Asp Met Phe Asn Phe Glu Thr Phe Gly Asn
 1635 1640 1645
 Ser Met Ile Cys Leu Phe Gln Ile Thr Thr Ser Ala Gly Trp Asp Gly
 1650 1655 1660

Leu Leu Ala Pro Ile Leu Asn Ser Ala Pro Pro Asp Cys Asp Pro Asp
 1665 1670 1675 1680
 Thr Ile His Pro Gly Ser Ser Val Lys Gly Asp Cys Gly Asn Pro Ser
 1685 1690 1695
 Val Gly Ile Phe Phe Phe Val Ser Tyr Ile Ile Ile Ser Phe Leu Val
 1700 1705 1710
 Val Val Asn Ser Tyr Ile Ala Val Ile Leu Glu Asn Phe Ser Val Ala
 1715 1720 1725
 Thr Glu Glu Ser Ala Glu Pro Leu Ser Glu Asp Asp Phe Glu Met Phe
 1730 1735 1740
 Tyr Glu Val Trp Glu Lys Phe Asp Pro Asp Ala Thr Gln Phe Ile Glu
 1745 1750 1755 1760
 Phe Ser Lys Leu Ser Asp Phe Ala Ala Ala Leu Asp Pro Pro Leu Leu
 1765 1770 1775
 Ile Ala Lys Pro Asn Lys Val Gln Leu Ile Ala Met Asp Leu Pro Met
 1780 1785 1790
 Val Ser Gly Asp Arg Ile His Cys Leu Asp Ile Leu Phe Ala Phe Thr
 1795 1800 1805
 Lys Arg Val Leu Gly Glu Ser Gly Glu Met Asp Ala Leu Arg Ile Gln
 1810 1815 1820
 Met Glu Asp Arg Phe Met Ala Ser Asn Pro Ser Lys Val Ser Tyr Glu
 1825 1830 1835 1840
 Pro Ile Thr Thr Thr Leu Lys Arg Lys Gln Glu Glu Val Ser Ala Ala
 1845 1850 1855
 Ile Ile Gln Arg Asn Phe Arg Cys Tyr Leu Leu Lys Gln Arg Leu Lys
 1860 1865 1870
 Asn Ile Ser Ser Asn Tyr Asn Lys Glu Ala Ile Lys Gly Arg Ile Asp
 1875 1880 1885
 Leu Pro Ile Lys Gln Asp Met Ile Ile Asp Lys Leu Asn Gly Asn Ser
 1890 1895 1900
 Thr Pro Glu Lys Thr Asp Gly Ser Ser Ser Thr Thr Ser Pro Pro Ser
 1905 1910 1915 1920
 Tyr Asp Ser Val Thr Lys Pro Asp Lys Glu Lys Phe Glu Lys Asp Lys
 1925 1930 1935
 Pro Glu Lys Glu Ser Lys Gly Lys Glu Val Arg Glu Asn Gln Lys
 1940 1945 1950

<210> 69

<211> 1380
 <212> DNA
 <213> Homo sapiens

<400> 69
 aatgtatttta ttttaattgat gataaaactgt aataaaatca tagttgtttg ctctaaagta 60
 gatatgaaag gtcagatgaa acaataacat acatctggat tgagaaatat cttaataact 120
 gatggattat ttttattttc tttatgtatt gtgtgcttca atatcctaataaataatatt 180
 agctagggttc actgatgtat agaatctttt tctacattta gatatttctt gcaaagtgtt 240
 taccagaaag caacacaaaa atactatcag tgagtatgtg tttacactgt tctctaagga 300
 gtcaaattcc tcaccttgaa aataattcat cccaggaaga gaaaagggtt tcaaaagact 360
 agagcaggcc acaagggagc tttcgcaaaa ctctacacgt aaagggtaat gttaaacttaa 420
 aacctatttt tcaaacagta atttatatat cttttaattt tagtagttta tgtgtgaaac 480
 aatcatgcaa aacaacaaag tgataaaatt ttttaaaaaa attagtgaga tgcaaataac 540
 tgaatatgta aaagggtctca tacatattta tatgtagtag ataagttaca ttttttttagt 600
 gtgttgggaa atttttagctc acatcacctc tctactgtca tcttggggca ctttcatgac 660
 tactccatgtc tcatgcagggt ttacttttcc cctgtgaca gaggataatg ggaatgtttt 720
 ttctttggct caattttgtg tgtgtccgcc agtagatggc gtaccacttt gagtgcgac 780
 ggcccttttt tctttctttt ttttttttcc caaagctgtt ttctgatata tgttgggtac 840
 catagagtga atctcagaac aggaagcggg ggcataagca gagaggattc tggaaagggtc 900
 tctttgtttt cttatccaca gagaaagaaa gaaaaaaaat tgtaactaat ttgtaaacct 960
 ctgtggtcaa aaaaaaaaaa aaaaaaaaaa gctgaacagc tgcagaggaa gacacgttat 1020
 accctaacca tcttggatgc tgggctttgt tatgctgtaa ttcataaggc tctgttttat 1080
 caggtaagct gacaaaacat ttcattatct gcaccataga acctagctac caggtcattt 1140
 tccttacttt aaaatcatct tcatgctgct atttttaacc cagtgttgtt taaatgtaaa 1200
 ttacaggaac caaaggcatc gtttgatgtg taaactgctt actatttctt tatctttcaa 1260
 agaaaataga gcctgtctgg aaatggtgat ttatggtaca tactaggcat caatggtcct 1320
 gtgtttttgt agatgcttat gattaattgt attcagaaaa aatatttttt attatactta 1380

<210> 70
 <211> 840
 <212> DNA
 <213> Homo sapiens

<400> 70
 agggagaagaac agaaggatgc tcaggagtgc cagcatgcct tcagaaagac taaatggatc 60
 aaggctgccaa aagaaggggg agcacccttg tcccaaccct aggatcctgg cagtggttcc 120
 tgggtcccatt cttcctaaat catgctaggg catgctttta acaagggtca aatatcttgc 180
 tttgcatcat ccttgctttc tcgatccagg gccataaaaa aaaaagggaat aaaaccaga 240
 cacagagcca gagcaccct atgccaaatg tcaaagatta taggctaatt tcacctgtat 300
 tctcttttcta cagagattat ggagcaagaa aactgaagcc aagccacatc aaggtttgac 360
 agggatgaga tacctgtcaa ggattcatag tagagtggct tactgggaaa ggagcaaaga 420
 atctcttcta gggatattgt aagaataaat gagataattc acagaaggga cctggagctt 480
 ttccggaaaa aggtgctgtg actatctaag gtaactaaac aacttctggg tataagtttg 540
 tttttgtgga aaataaacta aaatctctac tatttaacaa ggacagctgt atcaggacca 600
 aaagaaggca gagggtgtt ttcttccttc ctctaccagt ttgttcttcc aaagaggcaa 660
 atacatacag ggagacatag cacagatgac cttagggaat ggaatgatgc caaaggctgt 720
 tgatgtaaga aagagagatt aactcagttt tttttttgtt tttgtttttt tgttgttgtt 780
 gttgttgttt tgagacagag tctctctctg tcgcccaggc tggagtgcag tggcatgaac 840

<210> 71
 <211> 780
 <212> DNA
 <213> Homo sapiens

<400> 71

```
gatatatattaa attttatgta ttttaataaaa ttataatgtg catataatca ttaataatat 60
atatattcca caccaaggca tcagtaagaa ttaattttta aagtctgctc taatgtgaat 120
ataaaattat gtaagaactc tgtataataa gctcacagag tacaagaaag gagaggaaaa 180
aagtaaaaga gaactgcgaa agaactatga gggatttcca aacagcaaaa ttgtcattga 240
agccatgaga aactctactc actaaattct ttaattttctc agcctaccca aatattgggc 300
aaacccta at tctcttgag gggaaaagct gagagtctgg aactagccta tcttccgagg 360
acttagagac aacagtatgg gaatttcaac gagacgtttt tactttcttt tgaccaagat 420
tcaaattctt tattccagcc cttgataagt aaataagaag gtaaaggact atttatttgt 480
aaaaagtttt tcatgatttt gtgatggcac cttgttccat atcatctcag ataaatcaga 540
ataattttgtg aaaattactc ggtgatttcc acattagata ttttaaacct aatgttattt 600
ctaaaacaaa aaccaaccag gagaatccaa ttaagtaaaa tgtatgtatt aatataaatt 660
agctattccc atctggaaaa gggcagccat ttctgtgttg aggtgcctca atgatactga 720
ggctgagaca ggtagatga tacaggcata ccattagcag cagactcaat actaaccag 780
```

<210> 72

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 72

```
acaaagttat gaaaaggcgg ggggcaggat gcagaataat taagcaattt tattgacaaa 60
ctthactggc attactcttt tgctgaaagt atactatatt ttggcttaca gtgtcaaac 120
agaatttttt aaatgctttt aaaaaatgga caaaattata gatattcttg agtttaaata 180
taatgtttat atattatata tactgtacat tgtagaatgg cttaatcaaa ctaattaaca 240
ttaagtacag acttttgata gatttatgaa cttggccttat tgagaatgag gttgaatgat 300
gatgttttca agttcaaatg tgtagtgcag tactaaaagc atgacttaat gtttatagct 360
ttaaaaagtt actaaagaat gacatttttg ttgatgttct tatgccaat cgcttgcttt 420
cctaactctt gtgcaatttt tctttttatt gcaggtaatt cgtatgcaag aagctacacg 480
taattaaatg tgcaggatga aaagatggca caggcactgt tggtaacccc aggacctgaa 540
agcttccgcc tttttactag agaattctct gctgctatcg aaaaacgtgc tgcagaagag 600
aaagccaaga agcccaaaaa ggaacaagat aatgatgatg agaacaaacc aaagccaaat 660
agtacttgg aagctggaaa gaaccttcca tttatttatg gagacattcc tccagagatg 720
gtgtcagagc cctggagga cctggatccc tactatatca ataagaaagt gattattgat 780
tttagacttc taataaatct ttaatgaaac tcttaactgt aatatacttt tctgggcctt 840
atatacagca tcacaatttt tcttctgtta aagattttat aatactcttc actgtcactt 900
atttttatca caatataata aaacaaacat ttataagaaa tgaagtcaag agttgggtac 960
agtcaggaaa tatgaataga tgaatgattt ctacaatttc acagtgataa ttcagatagt 1020
caaaa 1025
```

<210> 73

<211> 433

<212> DNA

<213> Homo sapiens

<400> 73

```
tgtaacyata tgtaatttta aacatctaac atgtttgtag ttatgatata tcaactgggtt 60
taaacaacc agtttgaaca acaaatctcy attttttaaa aaggtcctca tgtatgtaag 120
ctccttaaat aagcccatgt ctaatttagt aattttactc gtattttctg tttcagactt 180
ttatagtaat gaataaagga aaggcaattt cccgattcag tgccacctct gccttgata 240
ttttaactcc actaaaccct gtaggaaaaa ttgctabsaa gattttggta cattcatatc 300
cttttaagt gaattgccta aatgctatct ctaacagttg atttttaaaga aaatgtcagt 360
tatattttca agtatctgta aaatttcttt gagattaatg gtaacattgt tagtttaatt 420
catttatttg cat 433
```


<210> 74
 <211> 450
 <212> DNA
 <213> Homo sapiens

<400> 74
 gagtgcacca aggccatatac acaggctttg aagtttctta ttattttatc attgttttaa 60
 aacaaataat attaatattca cagtttttgc atcgataaac ttttttgtgt gttttggatc 120
 atttataaat ggccatggta acctactaac atttattcct taactataat ctactttatt 180
 cagcatgctt atcatgtgca ctattttgac caactgtgta tttatgacct tgagcaaccc 240
 tcctgactgg acaaagaatg tagagtaagt aggaataact tctgggaatg agaaatgcac 300
 actcaaattc tctagcaatc tccttgtggg tatagcctga cttatgggtt ccactttctgt 360
 ctaagaaaag ttattttcat aatatgcagc cggttaaggga ggtctttcgg gggagctatt 420
 cttctacgag gtaagtattt tcccacaaaa 450

<210> 75
 <211> 701
 <212> DNA
 <213> Homo sapiens

<400> 75
 aaaatttacc atttgyggct ttccattaca tttctatcag ataactctgc gctagtaggt 60
 caaactagat gattatccat aagatacatg aaactattat tctaaaaccc aaatagttaa 120
 accagattag attcctaaag aatatatttt ctcttcagtt taactctttg ctcaggcttg 180
 taaaactaac taaatgaata gattatttgg taaatagaag taaggaacaa tattttaatg 240
 aattgaaaaa ccacaaaagg ataggatttg ctatgattga aaacatttat ttttaacagtt 300
 caagcaaaat tggttaatttt ggcttggatg tttttcctag gtacacattc actggaatct 360
 atacctttga gtcacttata aaaatccttg caagaggggt ttgcttagaa gattttacgt 420
 ttcttcgtga tccatggaac tggctggatt tcagtgatcat tgtgatggcg tgagtaactt 480
 tgaaaatttg ataagcgcaa aggagtgaat atagtcatag tacaaacaag gtctttgtgt 540
 catatattaa atgtagagct ttcttgtagg tcaagttaac tatatgggtt gtgtattttc 600
 agaatacata ttagaatata tattgcaatg taaatatatc cagtaaataga tcaataaatg 660
 gggttatctt catgtcatat agtctttctc ttcatacaaaa t 701

<210> 76
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 76
 atttgttaaa ctcacagggc tctatgtgcc aaaccagca ttaagtcctt atttagtata 60
 aactttgcca aaactatcag taactctgat ttaattctgc aggtatgtaa cagaatttgt 120
 aagcctaggg aatgtttcag cccttcgaac tttcagagtc ttgagagctc tgaaaactat 180
 ttctgtaatc ccaggttaaga agaaactggg gtaaggtagt agggccctta tatctccaac 240
 ttttcttgtg tggtattgtg tttgtgtgtg aactccccta ttacag 286

<210> 77
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 77
 gtaagaagaa actggtgtaa ggtagtaggc cccttatatc tccaactttt cttgtgtgtt 60

```

atttgtgtttg tgtgtgaact cccctattac agatatgtga cagagtttgt ggacctgggc 120
aatgtctcag cgttgagaac attcagagtt ctccgagcac tgaaaacaat ttcagtcatt 180
ccaggtgaga gctagggttaa acaccgaggt tgactttaat tattgagttt gaaatcaatt 240
tatatgactt acagcattag ccttgttgct tattattaca gttcatcccg gtaaataatg 300
ccaaatgatg tttcaatgtc agtttagctc ctaaaatttt ataaattaca tgcgtattta 360
taaagtcagc ctttgagttt aacagaaaat tgcattgagac atcttcaaaa aatgctaatt 420
tgggcctctt gcgctctctc tctctctttt tcactaccat ggctttacta acagatttgg 480
atthttaccat tcgctgcaga tgtagttaa aaatg

```

<210> 78
 <211> 564
 <212> DNA
 <213> Homo sapiens

```

<400> 78
aaacttcctg actagatatt taaaccttca tattgaattt ccagcaagca cactgttcat 60
gtgtaaaatc tgctgttcat ctatttccca aatcatcagg ctatccatac agctttgggtg 120
tctaaatagt caagcaatca tttatggggg aaagagaatg tgtgtgacta ttaagaaatc 180
atgattttctg gcaactcttc tcaggttaacc tatagtctc tctctgcagg tttaaagacc 240
attgtggggg ccctgatcca gtcggtaaag aagctttctg atgtgatgat cctgactgtg 300
ttctgtctga gcgtgtttgc tctcattggg ctgcagctgt tcatgggcaa tctgaggaat 360
aaatgtttgc agtggccccc aagcgattct gcttttgaaa ccaacaccac ttcctacttt 420
aatggcaciaa tggattcaaa tgggacattt gttaatgtaa caatgagcac atttaactgg 480
aaggataaca ttggagatga cagtaagaag tattacatta tgtaaacctt agtgttgctg 540
aatgaatttt caactataaa tagt

```

<210> 79
 <211> 497
 <212> DNA
 <213> Homo sapiens

```

<400> 79
tgagactgtg ggtgtacagc cacctttgta aataactgaa atagtccaac tctgatttat 60
tactaatact aatgtgaata ggattaatat gaaataaaat ggggtttttt ttgtattaac 120
aggctacttt tatgttttgg atgggcaaaa agacccttta ctctgtggaa atggttcaga 180
tgcagggtaa gaaacataat atatatTTTT aagatataga actctttgcg aaaaaaaaaa 240
gtaggttaga aaacaactac atgggtatat gtgtagcctt accatgtatg caataaagag 300
cagtgtgtgt cccctaggaa gtgccttgtc tgccttaccg gattgccact ggtcctaaac 360
tcacagcaat taaaaattat ccctttgtga agacccttcc ccaaaatttc acagttaaga 420
tgttcttaaa ttgatgtctc aatgtgtgaa ggcccagagt ctgtctttgc tgtacatcta 480
tcagagctgt taggaaa

```

<210> 80
 <211> 501
 <212> DNA
 <213> Homo sapiens

```

<400> 80
aaagagtaaa aatatggtaa ggtcagagcc aaaagtgtgt ggttgctagc tttctgccat 60
tctaaatgtc trwaaawatt tatttgcatc taaatTTTct atcggctctc ctagtgaatt 120
tcatctgata agtttcacgg tgggcaatca cctaaagtgt tctggaaatt aaagcaagat 180
aattcgtcac agatagcagc tttgggtttt gaaaattcct ataagtcaaa taaattgaaa 240
ttgctgtaat ttctaaactg accctacctc catttctctc tcttatagcc agtgtccaga 300
aggatacatc tgtgtgaagg ctggtcgaaa ccccaactat ggctacacaa gctttgacac 360

```

```

ctttagctgg gctttcctgt ctctatttcg actcatgact caagactact gggaaaatct 420
ttaccagttg gtaaggtcca aatgagcatg cataacattt atttttatag acatgtatga 480
aatgaaaagc ataggctgag t                                     501

```

```

<210> 81
<211> 432
<212> DNA
<213> Homo sapiens

```

```

<400> 81
agctaattag tctactgact atctaactgt ggtaatcaga tattttatttg gggacattat 60
actaaaatac tgatggaatt atccccatt tcccctagac attacgtgct gctgggaaaa 120
catacatgat attttttgc ctggtcattt tcttgggctc atttttatttg gtgaatttga 180
tcctggctgt ggtggccatg gcctatgagg ggcagaatca ggccaccttg gaagaagcag 240
aacaaaaaga ggccgaattt cagcagatgc tcgaacagct taaaaagcaa caggaagaag 300
ctcaggtact gagtgataaa mgcaaagatt tatcattatt attmttagtt tctaagtaga 360
aatagtgtta tactatagag ggtagattgg aactgctttt tcattttata tatmggcatt 420
gtcattagac ac                                     432

```

```

<210> 82
<211> 489
<212> DNA
<213> Homo sapiens

```

```

<400> 82
tgcaaaactgt tttcaaagct ctgtgttcta aatagtgcct ggctttgttt tatgacaggc 60
agttgcggca gcatcagctg cttcaagaga tttcagtgga atagggtgggt taggagagct 120
gttggaagt tcttcagaag catcaaagtt gagttccaaa agtgctaaaag aatggaggaa 180
ccgaaggaaag aaaagaagac agagagagca ccttgaagga aacaacaaag gagagagaga 240
cagctttccc aaatccgaat ctgaagacag cgtcaaaaaga agcagcttcc ttttctccat 300
ggatggaaac agactgacca gtgacaaaaa attctgctcc cctcatcagg tatgattttc 360
tactaagtgc tctggtttct ttgtcattgc tattgctttt tagtttttgt attttgtttt 420
ggtacacttt tgtactatct gtacttcagt tgagggacag ggaactaaca tttaatatag 480
ttgtttaaa                                     489

```

```

<210> 83
<211> 653
<212> DNA
<213> Homo sapiens

```

```

<400> 83
gtgaagacta aatgaagtgg ttgtatactt agtaaattgc aaatcagtat tgttagtcag 60
aaaaacactc tttgtactta aatttgcttt aataaaaaata tcaaaatata tgtgtcctct 120
ataaatttga ttatccatgt ttaagggcaa gagtatacta actccaaaga aaacagatcc 180
tttaatatata atatttatta aataattgct tcttccctt acccccatcc cattcctttc 240
ctttttgctt tctctgcagt ctctcttgag tatccgtggc tccctgtttt cccaagacg 300
caatagcaaa acaagcattt tcagtttcag aggtcgggca aaggatgttg gatctgaaaa 360
tgactttgct gatgatgaac acagcacatt tgaagacagc gaaagcagga gagactcact 420
gtttgtgccg cacagacatg gagagcgacg caacagtaac gttagttagg ccagtatgtc 480
atccaggatg gtgccagggc ttccagcaaa tggggaagat gcacagcact gtggattgca 540
atgggtgtgg ttccttggtg ggtggacctt cagctctaac gtcacctact gggcaacttc 600
cccagagggtg ataatatag acctagctgc tactgacatt attcaccaat ttg                                     653

```

<210> 84
 <211> 566
 <212> DNA
 <213> Homo sapiens

<400> 84
 gaattctctt aaaggtacta cctgtgatac tttttttaaa aaaaaactgt ttataactta 60
 gcaataattc aatattttat tcttgaaatt cttacctgga aaattgcatg tagcatgatt 120
 tgcaaagaaa tgctatgtgg tgttgattta cttattggga agagtgggtt gagccatcag 180
 tatttggttt gcagggcacc accactgaaa cggaagtcag aaagagaagg ttaagctctt 240
 accagatttc aatggagatg ctggaggatt cctctggaag gcaaagagcc gtgagcatag 300
 ccagcattct gaccaacaca atggaaggta agagcaggtc atggaacagc caactttctg 360
 tgattatgtg ctttgtgaac tattccttct tttcatagaa ttactgaagt ctgttaccga 420
 gatcgaacta tatatttagac ctaagaatgt gatatatggt gtacattatc acattgntta 480
 caaaactaat attggcctta ttctttttga cttgggtcct taccttactt gcagagtgat 540
 atttcaacac ttgatattat atcaat 566

<210> 85
 <211> 748
 <212> DNA
 <213> Homo sapiens

<400> 85
 tagtcatttt aaaagcaaaa tattaatttc aaagtgccta ttttctgtat tcaaaagaga 60
 aaaaagtcga tctatatgac attttaatta acattttctg aaaatattta atgggattgt 120
 cttctcaagt ttcttaagta atatgaactt ctattttcaa atataagcat caattttgtt 180
 aaataatgta aaatctacta gcaataataa ctcatTTTTg ttgttattta ctactcttcc 240
 ttgttattgt ccctccagaa cttgaagaat ctgacagaa atgtccgcca tgctggtata 300
 gatttgccaa tgtgttcttg atctgggact gctgtgatgc atggttaaaa gtaaaacatc 360
 ttgtgaattt aattgttatg gatccatttg ttgatcttgc catcactatt tgcattgtct 420
 taaataccct ctttatggcc atggagcact accccatgac tgagcaattc agtagtgtgt 480
 tgactgtagg aaacctggta agtacatttg aagtttactt atttactttg gtagatgtgg 540
 gagagataga ccaaagggaa agatgtattt gtgctgtgtt gaacccaaaa attatacct 600
 ctttcctcat agaaagaaat atctaaggaa tattacaggg aatctcagag atacagccta 660
 aaactcaact ggtatgaatg ctgattgttt aggccaatgt ctgtgctgat tgatcatggt 720
 gtcttaccag ttgtaaacgt ctcaaaat 748

<210> 86
 <211> 664
 <212> DNA
 <213> Homo sapiens

<400> 86
 ctaagacttg aattgatttg tcactattct ctacttttaa attttagata tttttattcc 60
 tgtctaattg tcttctttat aaattcgtgt agcatcagtg ttttcagtg tcttgatagt 120
 agtgctgata tctaattttt taggtcttta ctgggatttt tacagcagaa atggttctca 180
 agatcattgc catggatcct tattactatt tccaagaagg ctggaatatc tttgatggaa 240
 ttattgtcag cctcagttta atggagcttg gtctgtcaaa tgtggaggga ttgtctgtac 300
 tgcatcatt cagactggta tctatttata tataccctg tcgctcattg gcacaacatt 360
 tattttgaaa ttgaatcaat gtatatttat ataattatta attttaattt taaatttaca 420
 tcaatatgtg acattctaag aaaacatgta aacatccyct ttaaagctaa accattttct 480
 aagaatgatg aaagcattca aaatactcta taatgattag gtatgtaggg cacattagaa 540
 aacctacaag tactttctaa aactgtgttt taagtttatg aagctttttt ggccttacag 600
 tctgtaaaga tacgcaata aaaatttaga cccagtttaa ttttagcttt ttattaaccc 660
 tact 664

<210> 87
 <211> 750
 <212> DNA
 <213> Homo sapiens

<400> 87
 tattttttatt tttgcactta aatgatatta tgaccagatt tacaattcta atattgttaa 60
 cactattttt tctggatttg aaattgaatc agttcagtat attttgagtt tttacatcta 120
 ccacgtgtgg ttctatgata ccacatacta ataaaaataat gtctaaaatt atattatgat 180
 tactactaac agcatctttt cacttgatta cagcttagag ttttcaagtt ggcaaaatcc 240
 tggcccacac taaatatgct aattaagatc attggcaatt ctgtgggggc tctaggaaac 300
 ctcaccttgg tgttggccat catcgtcttc atttttgctg tggtcggcat gcagctcttt 360
 ggtaagagct acaaagaatg tgtctgcaag atcaatgatg actgtacgct cccacgggtg 420
 cacatgaacg acttcttcca ctcttcctg attgtgttcc gcgtgctgtg tggagagtgg 480
 atagagacca tgtgggactg tatggaggtc gctggccaaa ccatgtgcct tattgttttc 540
 atgttgggtca tggtcatttg aaaccttgtg gtatgtatgt agtacaaatg ctcataaatt 600
 agaacaagag cagacagtag ctaggaacgt ggccagatgt agtaaacata tctctgggtt 660
 atagtaagtg gcctagactg aaatccccct attagcactc agagaataag caagttattt 720
 aacttctcct gggctctggt ttcccathtt 750

<210> 88
 <211> 768
 <212> DNA
 <213> Homo sapiens

<400> 88
 ccttagagca ggatattagg tccttttaaag agtgtgtgac ttagacatgg catctgaaat 60
 atagtaagca ttcaataaac atttgttgaa ataatttttag caaagatcta tgagttccct 120
 ttttaggctg ttattttaa gcatatttca atattaarat aggcattttt ctttttttct 180
 tttaggttct gaacctcttt ctggccttat tgttgagttc atttagctca gacaaccttg 240
 ctgctactga tgatgacaat gaaatgaata atctgcagat tgcagtagga agaatgcaaa 300
 aggaatttga ttatgtgaaa aataagatgc gggagtgttt ccaaaaagcc ttttttagaa 360
 agccaaaagt tatagaaatc catgaaggca ataagataga cagctgcatg tccaataata 420
 ctggaattga aataagcaaa gagcttaatt atcttagaga tgggaatgga accaccagtg 480
 gtgtaggtac tggaagcagt gttgaaaaat acgtaatcga tgaaaatgat tatatgtcat 540
 tcataaaciaa cccagcctc accgtcacag tgccaattgc tgttgagag tctgactttg 600
 aaaacttaaa tactgaagag ttcagcagtg agtcagaact agaagaaagc aaggaggtaa 660
 ggaatgcttt taaatttttt gttccatttc ctatgataac catgtactac agttattttac 720
 tatttttcatt gtgcttatat gcattatcga aaagcaatga ttgtaagt 768

<210> 89
 <211> 471
 <212> DNA
 <213> Homo sapiens

<400> 89
 taattattag tacataatga tcagtaatgc taatagagtt aaatgctatc actacatttt 60
 ttttcacaca atgacacagt atttcccagt tagttaaata aaagggggaa aatcacatct 120
 ttgaaatggg attttgtttc cagaaattaa atgcaaccag ctcatctgaa ggaagcacag 180
 ttgatgttgt tctaccccga gaaggatgaac aagctgaaac tgaacccgaa gaagacctta 240
 aaccggaagc ttgttttact gaaggtaaac aagctctgat gtgattaaat acaatctccc 300
 cttgttcttt acggagactg aatatgcctc atttaaaaaa aaaaatttag caaacgaggt 360
 gtggtggcct atgcctgtaa ccccaaaatt ttgggaggct acggtaggag gattgcttga 420

ccccaggagt ttgagaccac cctgggaaat gtagtaaggc tttgcctcta c

471

<210> 90
<211> 623
<212> DNA
<213> Homo sapiens

<400> 90
gaattctaag tagctggctg agtatataag tctgagaata attcattata caggagggat 60
gctgacgata actaggaaat gaaggagatg gttaccctat gaaatgatta cctggaagtg 120
gagtggggaa ggggcaagaa agtttatttt ttcctatttt agattaaaat atatttttta 180
attaactata ttttsattttt aggatgtatt aaaaagtttc cattctgtca agtaagtaca 240
gaagaaggca aagggaagat ctgggtggaat cttcgaaaaa cctgctacag tattgttgag 300
cacaactggg ttgagacttt cattgtgttc atgacccctc tcagtagtgg tgcatggta 360
agtgaatgca atattggcaa gaatcagatt ctgggtgaaat agttttattct ccaaaattac 420
cagatgcaaa cactgagctt cagaatcaaa agaaaaggca tatctgtgtc ttgcagagct 480
tggcacccaa ggtttaacga tgcaaaattc agttctgaac aaatcagcac catgaaacag 540
ccgatggaa tttctcatct ggtgtttatc taacagatgt tttcctcact gagacaacca 600
tttgcagaga cattctgtaa cca 623

<210> 91
<211> 520
<212> DNA
<213> Homo sapiens

<400> 91
ctagttagtc tttagatttg tctcatgttc aatgtttatg taaaatatca ataatacaaa 60
ttattctttt gtactcacta ttatactaag caattttttc aaatatttag aagaagcaag 120
ccatttaagt aaaataaaat atttttgatt cataggcctt tgaagatata tacattgaac 180
agcgaaagac tatcaaaaacc atgctagaat atgctgacaa agtctttacc tatatattca 240
ttctggaaat gcttctcaaa tgggttgctt atggatttca aacatatttc actaatgcct 300
ggtgctggct agatttcttg atcgttgatg taagtatttt aagtgatttt tataaaattg 360
tttttaaaag aggcaagttt gacatttcat atgtttctgt tattaaaact ttcactaata 420
atgacataat tatgcagtta tttaaacaaa actgtaacat atgcaacaat gaggaatatc 480
tcatgggaaa gagtagagga ggtcctaaac atgggcagtg 520

<210> 92
<211> 595
<212> DNA
<213> Homo sapiens

<400> 92
ctaactaata atttaagcac acatccatga aggatctggc attgaactca atcctgaatt 60
atcagtggta tatgcacaag ttgaaaaggg gtccatggta taaaatatct aactggagat 120
attgacacgt gttgataaat atgggcaagt attctggttt cattgggttaa aaaaaagcaa 180
tagtatgaga tgagactggc aatataagat gacccacta tgtggaagat gaaagtggcc 240
aaggtagtgc caaattagta tttagtctgc attaaataga taccacaccc tataccttca 300
gtcaacagtt tatttcttg tgaactaatt aatttttttt tccttttgta ggtttctttg 360
gttagcctgg tagccaatgc tcttggtac tcagaactcg gtgccatcaa atcattacgg 420
acattaagag cttaagacc tctaagagcc ttatcccggt ttgaaggcat gagggtaaga 480
agaatagaca ctctaattat tcatgtcaaa aattacatgt aggtaatgat ttagatagaa 540
aagggtgccca tactcttctg atattttatt caatagaaat tacagaatta gaagc 595

<210> 93
 <211> 787
 <212> DNA
 <213> Homo sapiens

<400> 93
 ccagcatata aacattttct gactccatct tactatacca ggtttttaat gattttctttt 60
 catactgtag catattttgc tttccttaaa accttagctc tttagttgtg tcattgtttg 120
 ttttccttca aatatgtgct agaaaaatta gaagaaacaa cttgtccacc tagattttta 180
 ttttaactctt ttcaagcaca tattaatact aaacaaatac attgaaggaa tggtttccat 240
 tcaaaagggtt tgtaagctat gttcccctcg ctgtctcttc taggtggttg tgaatgctct 300
 tggttgagca attcccctca tcatgaatgt gctgttggtc tgtctcatct tctggttgat 360
 ctttagcatc atgggtgtga atttgtttgc tggcaagttc taccactgtg ttaacatgac 420
 aacgggtaac atgttttgaca ttagtgatgt taacaatttg agtgactgtc aggctcttgg 480
 caagcaagct cgggtgaaaa acgtgaaagt aaactttgat aatgttggtc ctggctatct 540
 tgcactgctt caagtggtaa gtggctactg tacgagtttt gaaaaagttt tcaagatgtt 600
 tcaaggaaga ttattttcct gatgttcttc gtttgaatga ctaacatttg acagcatgaa 660
 aaaaagttaa tgataacacc tataatatca gcttgaattg atcataaaaa agatgttaca 720
 attattttat aatgtatttt ccttagtggtt aagcttttag tatgttttaa tgtgatttta 780
 tattttct 787

<210> 94
 <211> 438
 <212> DNA
 <213> Homo sapiens

<400> 94
 aaaggaaaca agttccagac tttaaatata aatgtttttc tattttcaatt ttattttcaat 60
 ctcttgatat gaaatttcac aatattgtac aaaaagttat ttgttataat actgtcagat 120
 tttcatctgg ttaaatgtca ttgttaggtg aaatttttat gaacaattca aatatatgtt 180
 atttacaggc cacattttaa ggctggatgg atattatgta tgcagctgtt gattcacgag 240
 atgtaagtat cactcaaata ttatttatag gttctagatt tcttatgggtg aatattgggtg 300
 gtaattttaa cactgatata tccaaaattc tatattagaa catttaatat tgcataataa 360
 aatgaacag tctgcttcaa tatagatgat gcttgattaa tgtgtgccta atatacaata 420
 tgtagcta atgaaacg 438

<210> 95
 <211> 637
 <212> DNA
 <213> Homo sapiens

<400> 95
 gtaaggcaca atgggaaaag agaatcaaga acaatcataa aacttgcaaa ccttcattttt 60
 actagatcat actagtttta aaaaattgtt tttgtagaac aatatctcag ggtaaggcaa 120
 aagtagcact gtattaagta acagcactca ataaattact gatttagtgt aagtattttat 180
 agtatttttc atattattta atattttcaa tatcatttag gttaaacttc agcctgtata 240
 tgaagaaaat ctgtacatgt atttatactt tgtcatcttt atcatctttg ggtcattctt 300
 cactctgaat ctattcattg gtgtcatcat agataacttc aaccagcaga aaaagaagat 360
 aagtattctt tagctttttac ctttcttcat tctgggggtt tgtctgttaa tacagccaaa 420
 taaccagaat acctgtgggtc atgacagact taaatcatgt ttatattatt ttcagttgcc 480
 catgtgggta ttttaagctgc agggattcca gcctctagtc agtggctcct ctcaaagttt 540
 atctattgga tagctttctg acccaaaaat gtgtccactc cttcggaccc atccaacggg 600
 tctccagtgc tttagcttgg cttacagagc ctttcag 637

<210> 96
 <211> 637
 <212> DNA
 <213> Homo sapiens

<400> 96
 acccttgtgc ctacttttaa acatagtata atcaaattag gatcctgtag cgatcagagt 60
 tttatgtacg taaggatttt gcataatatt aagatattca gaatttcaca taaatgggaa 120
 aagcaggata aatgtatatg taggaggata atatccactt aaaaattaga aaagattaaa 180
 ggaaagacaa atatTTTTTg tgaaagtact attggaacac agaattgtaa ccagttttat 240
 actatgtctt tactttggag gtcaagacat ctttatgaca gaggaacaga aaaaatatta 300
 caatgcaatg aagaaacttg gatccaagaa acctcagaaa cccatacctc gcccagcagt 360
 aagaattact tgtctccttt aatgttcctc agccatgctt ccataatggc aaattgagca 420
 atgctctgga gcagaacata ttaggtgata tcaccaatat tgagccctaa ttataaagtt 480
 catatTTTgC atcataattc acaacttctg cactcattag gagttaccac attccaaaaa 540
 aaggaggtaa tgttctttat aatttgtgag ttgaaaactt ctagctcagg gttcctaata 600
 aatacttcca aagcaagggt cactttcctg ctaccaa 637

<210> 97
 <211> 759
 <212> DNA
 <213> Homo sapiens

<400> 97
 tatataaacc aaatatgctt tgttttagcta tataaatttt ttttccattt tttttaacat 60
 gaagagaaaa aaagcacaca aaattgTTTg gggtaatatg aggaggggtg acatccatcc 120
 cgatatgtgga agggctTTtT ctacaatttt actgcattat tctttatgaa atatatatag 180
 taaccttatt tctcttctct cactttctag aacaaattcc aaggaatggt ctttgatttt 240
 gtaaccagac aagtctttga tatcagcatc atgatcctca tctgcctcaa catggtcacc 300
 atgatgggtg aaacggatga ccagggcaaa tacatgacct tagttttgtc ccggatcaac 360
 ctagtgttca ttgttctggt cactggagaa tttgtgctga agctcgtctc cctcagacac 420
 tactacttca ctataggctg gaacatcttt gactttgtgg tgggtgattct ctccattgta 480
 ggtaagaaca gcttaattac caagaggat agttacagag aaacagttgc cccaggacct 540
 tctagctgat taacatggaa attaggtctg agaataataa tgcatataga tgtaaagttc 600
 aacactagca tatttgaata aaaactctga aacctgggtt tattcacaaa gctaactagt 660
 tagaaacat gtttaggaata ccagatttgg gaaagagggt aagaagacag gaaataaaca 720
 ttatcaggtt ctctcctaata cttaaaccac ggtcacagg 759

<210> 98
 <211> 3975
 <212> DNA
 <213> Homo sapiens

<400> 98
 aatctgtaat gctaattgcag ggagtggatc caaatattta ataaaggctc atattcataa 60
 caagttttggt gtgttcatag accttaaaaa agataaagcc atcatgtaaa gtgaaaagat 120
 attatctggt tagctgtggt ctatgttttc cataggtatg tttctggctg agatgataga 180
 aaagtatttt gtgtccctta cttgttccg agtgatccgt cttgccagga ttggccgaat 240
 cctacgtctg atcaaaggag caaaggggat ccgcacgctg ctctttgctt tgatgatgtc 300
 ccttcctgct ttgtttaaca tcggcctcct gctcttctg gtcatgttta tctatgccat 360
 ctttgggatg tccaactttg cctatgttaa aaaggaagct ggaattgatg acatgttcaa 420
 ctttgagacc tttggcaaca gcatgatctg cttgttccaa attacaacct ctgctggatg 480
 ggatggattg ctagcaccta ttcttaatat tgcaccaccc gactgtgacc ctgacacaat 540
 tcacctggc agctcagtta agggagactg tggaaccca tctgttggga ttttcttttt 600
 tgtcagttac atcatcatat ccttcctggt ggtggtgaac agttacatcg cgtcatcct 660

ggagaacttc	agtgttgcta	ctgaagaaa	g	ctgagtgagg	atgactttga	720
gatgttctat	gaggtttggg	aaaagtttga	t	acccagttta	tagagttctc	780
taaactctct	gattttgcag	ctgccctgga	t	ctcatagcaa	aaccacaaca	840
agtccagctt	attgccatgg	atctgcccac	g	gaccggatcc	actgtcttga	900
tattttat	gcctttacaa	agcgtgtttt	g	ggagagatgg	atgcccttcg	960
aatacagatg	gaagacaggt	ttatggcatc	a	aaagtctctt	atgagcctat	1020
tacaaccact	ttgaaacgta	aacaagagga	g	gctatcattc	agcgtaat	1080
cagatgttat	cttttaaaagc	aaaggttaaa	a	agtaactata	acaaagaggc	1140
aataaagggg	aggattgact	tacctataaa	a	attattgaca	aactgaatgg	1200
gaactccact	ccagaaaaaa	cagatgggag	t	acctctcctc	cttcctatga	1260
tagtgtaaca	aaaccagaca	aggaaaagtt	t	aaaccagaaa	aagaaagcaa	1320
aggaaaagag	gtcagagaaa	atcaaaaagta	a	aagaattatc	tttgtgtatc	1380
attgtttaca	gcctatgaag	gtaaaagtata	t	ggacttcaag	aggaggtcca	1440
tgccaaactg	actgttttaa	caaatactca	t	ctatacaaga	cagtgaatg	1500
acctctctgt	cactgcaact	ctgtgaagca	g	attgacaaga	ggttgctgtt	1560
tttattacca	gctgacactg	ctgaggagaa	a	tacctagact	atagggatag	1620
ttgtgcaaag	tgaacattgt	aactacacca	a	gtacagtcct	tgcatccatt	1680
ctatttttaa	cttccatata	tgccatattt	t	tggtctagt	catttccatg	1740
gtccccaatt	catagtttat	tcataatgct	a	ttttgtaaat	gaggtttacg	1800
ttgaagaaac	agtatacaag	aaccctgtct	c	cagacaaaag	tgttttgcc	1860
gagagataaa	atttttgctc	aaaaccagaa	a	aatggctaca	gtttcagtta	1920
cttccatttt	ctagatggct	ttaattttga	a	gtctgttatg	tttgtttcta	1980
tctgaacagt	tatgtgcctg	taaagtctcc	t	aaaggattat	ttttatgcaa	2040
agtattctgt	ttcagcaagt	gcaaatttta	t	cagagctcta	tatttaattt	2100
agggtcaaatg	ctttccaaaa	agtaattctaa	t	ctagaaaaat	atatctaaag	2160
tattgcttta	gaatagttgt	tccactttct	g	tgctttgcc	tcttctgtc	2220
tcagcaaaagc	tgatagtcta	tgtcaattaa	a	ttatgtaaat	agttatttta	2280
tcctgtggtg	catgtttggg	caaataatata	t	tatagcctga	ttaaacaactt	2340
aaatatgtac	cacagtgtat	gtgtcttttg	c	caagcttcca	acagggatgt	2400
attcattaaa	catagtttaa	aggctatcac	t	taattattgc	tatgctgtc	2460
tattttactc	aatccattct	tcacaagtct	t	tggttaaaga	atgtcacata	2520
aatgaattca	acctgctctg	tccattatgt	c	caagcagaat	aatttgaagc	2580
cacctttact	tttgcacttt	taattcaaca	t	tgagtatcat	atgggtatctc	2640
aaggaaacac	actggatact	gcctactgac	a	aaaacctatt	cttcataattt	2700
atgtctaaaa	cttgcgcaaa	tataaataat	g	gtaaaaatat	aatcaacttt	2760
attttgtaca	taagaaaatt	attttcaggt	t	tgatgacatc	acaattttatt	2820
cttttgcttt	tgatttttaa	tcacaattcc	a	aaacttttga	atccataaga	2880
gataattttcc	taaaataaaa	gttagataat	g	gggttttatg	gattttctttg	2940
ttttctacca	ttccaatagg	agatacattg	g	gtcaaacact	caaacctaga	3000
ccaactatgg	ttgcctcaat	ataacctttt	a	attcatagat	gttttttttt	3060
tgtagtattt	acgtatgcag	actagtctta	t	tttttttaat	tcctgctgca	3120
tacaaatata	acatggactt	tgttcttttt	a	agccatgaac	aaagtggcaa	3180
ttacctaaca	tgatataaat	ttttgttttt	t	tgcaaaaacc	aaaagtttaa	3240
ttttacaaaa	ctattttactg	tagtgtattg	a	aagaactgca	tgcaagggaat	3300
aaaaagaatg	gtgagctacg	tcattattga	g	gccaaaagaa	ttaaatttcat	3360
atttcactta	ttggcctctg	gggttttttg	t	ttttgtttt	ttgctgttgg	3420
tatatataat	taataaaaacc	tgtgcttgat	c	ctgacatttg	tatacataaa	3480
aaattttaca	cacagactagtg	catgattcac	c	caagcagtac	tacagaacaa	3540
aaagcagctt	tgtgcacttt	tatgtgtgca	a	aaggatcaag	ttcacatgtt	3600
ggtttgataa	taatagtagt	aaccacctac	a	aatagctttc	aatttcaatt	3660
gctataagca	tctaaactca	tcttctttca	a	atataattga	tgctatctcc	3720
gtggctaata	aatgtttacat	tctttgttac	t	ttaaatgcat	tatataaact	3780
cataagggtat	taatgatata	gttattgaga	a	atttatatta	actttttttt	3840
tggattttatg	tgagggtcaaa	accaaactct	t	tattctcagt	ggaaaactcc	3900
catattttta	aagacaattt	ggatctaaat	a	atgtatttca	taattctccc	3960
atataaggtg	gctaa					3975

<210> 99
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 99
tgtgttctgc cccagtgaga ct 22

<210> 100
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 100
cttcctgctc tgcccaaact gaat 24

<210> 101
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 101
ggcgatgtaa tgtaagggtgc tgtc 24

<210> 102
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 102
gtgccttcag ttgcaattgt tcag 24

<210> 103
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 103
 ttaggaattt catatgcaga ataa 24

 <210> 104
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 104
 tgggccattt ttcgtcgtc 19

 <210> 105
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 105
 gaaagacgca ttgcagaaga aaagg 25

 <210> 106
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 106
 ctattggcat gtgttggtgc taca 24

 <210> 107
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 107
 gtgctggttt ctcatTTaac ttTac 25

<210> 108
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 108
 ttcccaactt aatttgatat ttagc 25

<210> 109
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 109
 gcagtttggg cttttcaatg ttag 24

<210> 110
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 110
 gacacagttt caraatcccr aatg 24

<210> 111
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 111
 ttagggctac gtttcatttg tatg 24

<210> 112

<211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 112
 agcactgatg gaaaaccaaa ctat 24

 <210> 113
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 113
 agcccatgca gtaatataaa tcct 24

 <210> 114
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 114
 tccaggctga taagctatgt ctaa 24

 <210> 115
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 115
 ctgtggcctg cctgagcgta tt 22

 <210> 116
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 116
ccaattctac tttttaagga aatg 24

<210> 117
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 117
aaataacttgt gcctttgaa 19

<210> 118
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 118
gtacatacaa tatacacaga tgc 23

<210> 119
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 119
aggcagcaga acgacttgta ata 23

<210> 120
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 120
atccggtttt aatttcataa ctca 24

<210> 121
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 121
gttgagcacc cttagtgaat aata 24

<210> 122
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 122
tcacacgctc tagactactt ctct 24

<210> 123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 123
tgcaaatact tcagcccttt caaa 24

<210> 124
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 124
ttccccacca gactgctctt tc 22

<210> 125
<211> 18
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 125
gcagcaggca ggctctca 18

<210> 126
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 126
tctcccatgt tttaattttc aacc 24

<210> 127
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 127
ataatcttgc aaaatgaaat caca 24

<210> 128
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 128
atccgggatg acctactgg 19

<210> 129
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 129 gataacgaga gccgtagaga ttcc	24
<210> 130 <211> 20 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 130 agccagccat gcctgaacta	20
<210> 131 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 131 tgtttgcttg tcatattgct caa	23
<210> 132 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 132 tgactattc ccaactcaca aa	22
<210> 133 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 133 aagggtgtct ctgtaacaaa aatg	24

<210> 134
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 134
 gtgatggcca ggtcaacaaa 20

 <210> 135
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 135
 ctgggactgt tctccatatt gggt 24

 <210> 136
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 136
 tttgcagggg ccaggaag 18

 <210> 137
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 137
 cattgtggga aaatagcata agc 23

 <210> 138
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 138
 gcaagaaccc tgaatgtag aaa 23

 <210> 139
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 139
 taatgctttt aagaatcata caaa 24

 <210> 140
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 140
 ccagcgtggg agttgacaat c 21

 <210> 141
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 141
 cggcatgcag ctcttttgta 20

 <210> 142
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 142

atgtgccatg ctggtgtatt tc	22
<210> 143	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 143	
cacccatctt ctaatcacta tgc	23
<210> 144	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 144	
cagcaatttg gagattattc att	23
<210> 145	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 145	
gcagccactg atgatgataa	20
<210> 146	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 146	
ctgccagttc ctataccact t	21
<210> 147	
<211> 22	

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 147
 tacagcagaa attgggaaag at 22

 <210> 148
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 148
 gtattcatatc ctaccacac ctat 24

 <210> 149
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 149
 ttcttggcag gcaacttatt acc 23

 <210> 150
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 150
 taagctgcac tccaaatgaa agat 24

 <210> 151
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic

oligonucleotide

<400> 151
ggctgaatgt ttccacaact 20

<210> 152
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 152
gttcaactat tcggaaacac g 21

<210> 153
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 153
aggcagagga aaacaatgg 19

<210> 154
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 154
acaaggtggg ataattaaaa atg 23

<210> 155
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 155
gtttctctgc cctcctattc c 21

<210> 156
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 156
aagctacctt gaacagagac a 21

<210> 157
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 157
aatgatgatt ctgtttatta 20

<210> 158
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 158
aatttgccat tccttttg 18

<210> 159
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 159
ttgacatcga agacgtgaat aatc 24

<210> 160
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 160
 ccattctgggc tcataaactt gta 23

<210> 161
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 161
 ccctttgaaa attatatcag taa 23

<210> 162
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 162
 attggtcgt ttatgcttta ttc 23

<210> 163
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 163
 tccagcacta aaatgtatgg taat 24

<210> 164
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 164
 atttggcaga gaaaacactc c 21

<210> 165
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 165
 ttttagccat ccattttcta tttt 24

<210> 166
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 166
 tattttcccc catatcattt ga 22

<210> 167
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 167
 tttgcaagaa actagaaagt c 21

<210> 168
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 168
 ttgatgcgtg acaaaatgg 19

<210> 169

<211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 169
 gaccagagtg aatatgtgac tacc 24

 <210> 170
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 170
 ctgggatgat cttgaatcta atc 23

 <210> 171
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 171
 gcaactcagt tcatggaatt tgaa 24

 <210> 172
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 172
 cttgttttcg ttttaaagta gta 23

 <210> 173
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 173
caaagatcac cctggaagct cagtt 25

<210> 174
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 174
ttcaagcgca gctgcaaact gagat 25

<210> 175
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 175
acatcggcct cctactcttc cta 23

<210> 176
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 176
acagatgggt tcccacagtc c 21

<210> 177
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 177
taacgcatga tttcttcact gggt 24

<210> 178
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 178
 atcccaaaga tggcgtagat ga 22

 <210> 179
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 179
 tgagaaatag gctaaggacc tcta 24

 <210> 180
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 180
 cctaggggct ggattcc 17

 <210> 181
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 181
 aaggggtgca aacctgtgat ttt 23

 <210> 182
 <211> 21
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 182
agggccatgt ggttgccata c 21

<210> 183
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 183
cttcggttt atgttttcat ttct 24

<210> 184
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 184
tctttattag ttttgacat ttta 24

<210> 185
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 185
caatccttc aaggtctcct atc 23

<210> 186
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 186 tttcatcttt gccttcttgc tcat	24
<210> 187 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 187 catgtccact gcagcttgtc ca	22
<210> 188 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 188 tcccctttac acagagtcac agtt	24
<210> 189 <211> 15 <212> DNA <213> Homo sapiens	
<400> 189 gcatttgaag atata	15
<210> 190 <211> 15 <212> DNA <213> Homo sapiens	
<400> 190 gcatttgacg atata	15
<210> 191 <211> 15 <212> DNA <213> Homo sapiens	
<400> 191 atcatatcct tcctg	15

<210> 192
 <211> 15
 <212> DNA
 <213> Homo sapiens

 <400> 192
 atcatatmct tcctg 15

 <210> 193
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 193
 atgggttgaa tgactttctg acat 24

 <210> 194
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 194
 aggcatttcc tgtacagga ctac 24

 <210> 195
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 195
 acaggaaatg cctcttctta cttc 24

 <210> 196
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 196 tttccccaag gattctacta ctgt	24
<210> 197 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 197 agtgcattgta actgacacaa tcac	24
<210> 198 <211> 23 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 198 cttgcgttcc tgtttggttc tct	23
<210> 199 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 199 tccgcttctt taccagggaa tc	22
<210> 200 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 200 aggcagtga ggcaacttga ctaa	24

<210> 201
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 201
 cagggaataa tttataaata atgg 24

 <210> 202
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 202
 tttggaaaat gtgtagctca ataa 24

 <210> 203
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 203
 aaggcatggt agtgcataaa ag 22

 <210> 204
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 204
 atgaaacata aaggagagtc aa 22

 <210> 205
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 205
 aatgtgagct tggctattgt ctct 24

 <210> 206
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 206
 ataggctccc accagtgatt tac 23

 <210> 207
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 207
 aggcccctta tatctccaac tg 22

 <210> 208
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 208
 caacaaggct tctgcacaaa ag 22

 <210> 209
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 209

cttggtggct tgccttgac	19
<210> 210	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 210	
tcatgagtgt cgccatcagc	20
<210> 211	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 211	
ggaaagctga tggcgacact	20
<210> 212	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 212	
ctgagacatt gcccaggtcc	20
<210> 213	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 213	
tttttaccg ttgctttctt ta	22
<210> 214	
<211> 24	

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 214
 tatcccttgc tctttcattt atct 24

 <210> 215
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 215
 gccggtaaaa tagctgttga gtag 24

 <210> 216
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 216
 gccattgcaa acattttatatt cgta 24

 <210> 217
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 217
 gcgtgtttgc gctaataag 18

 <210> 218
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic

oligonucleotide

<400> 218
ctaagtcact tgattcacat ctaa 24

<210> 219
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 219
acagggtggc tgaagtgttt ta 22

<210> 220
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 220
gtgggaggtg gcaggttatt 20

<210> 221
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 221
caattagcag acttgccggtt att 23

<210> 222
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 222
tctcttgagt tcggtgtttt atga 24

<210> 223
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 223
 accgaactca agagaattgc tgta 24

 <210> 224
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 224
 aaaggaccgt atgcttggtc acta 24

 <210> 225
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 225
 tatgaatgcg cattttactc ttg 24

 <210> 226
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 226
 tggagctcaa cttagatgct actg 24

 <210> 227
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 227
 ggtgctggtg ggataggagt tttt 24

<210> 228
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 228
 tccattaaat tctggcatat tctt 24

<210> 229
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 229
 tcagaggggt gctttcttcc acat 24

<210> 230
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 230
 cttcggctgt cattgtcctc aaag 24

<210> 231
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 231
 gcaaaggaca ttggctctga gaat 24

<210> 232
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 232
 ctgcctgcac cagtcacaac tct 23

<210> 233
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 233
 tgggctttgc tgctttcaa 19

<210> 234
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 234
 agtaactgtg acgcaggact ttta 24

<210> 235
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 235
 ccctgttcct ccagcagatt a 21

<210> 236

<211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 236
 gtgatggcca ggtcaacaaa 20

 <210> 237
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 237
 tttgatttgg gactgttgta aac 23

 <210> 238
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 238
 aaggcaatta taaactcttt caag 24

 <210> 239
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 239
 tgggagttaa attaagttgc tcaa 24

 <210> 240
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 240
 acattttatg aacactccca gtta 24

<210> 241
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 241
 attaacactg ttcttgcttt tat 23

<210> 242
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 242
 gtgccagcgt gggagttc 18

<210> 243
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 243
 gtgggggctc taggaaacct 20

<210> 244
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 244
 tttaatgaaa atgaggaaaa tgtt 24

<210> 245
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 245
 gaccaagcat ttttatttca ttc 23

 <210> 246
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 246
 agtggcagca agattgtca 19

 <210> 247
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 247
 ggccttgctt ttgagttcc 19

 <210> 248
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 248
 ggtctttgcc tatttctatg gtg 23

 <210> 249
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 249

ttaaaccgct tgaagatcta aata

24

<210> 250

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 250

tatacaccaa aatatctcct tat

23

<210> 251

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 251

ggggcacacc taattaattt ttat

24

<210> 252

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 252

aaagaggata ctcaagacca cata

24

<210> 253

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 253 cccaccaaca caaatatacc taat	24
<210> 254 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 254 tgaagggaaa gggaaaagat tt	22
<210> 255 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 255 tccagcctta ggcacctgat aa	22
<210> 256 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 256 ataaagcagc aaagtgcagc atac	24
<210> 257 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 257 aaggctgaac tgtgtagaca tttt	24

<210> 258
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 258
 tgacatttcc atggtacaaa gtgt 24

 <210> 259
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 259
 tttgttggtg gcttttcact tat 23

 <210> 260
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 260
 ccacctggca gtttgattg 19

 <210> 261
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 261
 taagcgtggt caacaactac agt 23

 <210> 262
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 262
 attccttgcca gcatttattg tc 22

<210> 263
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 263
 caaaacattg ccccaaaag 19

<210> 264
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 264
 tcaaactaaa caatttcct ctaa 24

<210> 265
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 265
 gataattaaa aactcactga tgta 24

<210> 266
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 266

ggaggctaaa ggaaagagta tg	22
<210> 267	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 267	
atatttatagc cagcaaagaa cac	23
<210> 268	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 268	
ctagaaattc gggctgtgaa	20
<210> 269	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 269	
ctgctttgtg acctaaggca agtt	24
<210> 270	
<211> 24	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 270	
gtgaccatgt taaggcagat gagg	24
<210> 271	
<211> 24	

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 271
 ggaatggtct ttgattttgt aacc 24

 <210> 272
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 272
 tccttaactg aataaaagca cctc 24

 <210> 273
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 273
 tggaacaccc atcaaagaag atact 25

 <210> 274
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 274
 gtgggagtcc tgttgacaca aac 23

 <210> 275
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic

oligonucleotide

<400> 275
agcgattcat ggcacaaac 20

<210> 276
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 276
acgtggtgga aggcgtcata 20

<210> 277
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 277
gcgacccagt ttatagagtt tgcc 24

<210> 278
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 278
cttgtttgcg tttcaacgtg gtc 23

<210> 279
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 279
caaagatcac cctggaagct cagtt 25

<210> 280
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 280
 atccagggca tctgcaaaat cagaa 25

 <210> 281
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 281
 tgcctatggtt aagaggggaag ttggg 25

 <210> 282
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 282
 atgaccgcga tgtacatggtt cag 23

 <210> 283
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 283
 tcaattgttt acagcccgtg atg 23

 <210> 284
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 284
 tttatacaaa ggcagacaac at 22

<210> 285
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 285
 aggcgtaatg gctactcaga cga 23

<210> 286
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 286
 gtaatccctc tccccgaaca taaac 25

<210> 287
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 287
 tttgattcac gggttgttta ctctta 26

<210> 288
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 288
 ttctatggaa catttacagg cacatt 26

<210> 289
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 289
 taatgtgcct gtaaagtgtc cataga 26

<210> 290
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 290
 caggcttctt agaaaggact gatagg 26

<210> 291
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 291
 gtcccagcag catgactatc 20

<210> 292
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 292
 cccactgggt aaaattacta ac 22

<210> 293

<211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 293
 tagccatcctt ctgctcttgg t 21

<210> 294
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 294
 tggcttccca tattagactt ctg 23

<210> 295
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 295
 tcttgcctat gctgctgtat ctta 24

<210> 296
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 296
 agtcgggctt ttcattcattg ag 22

<210> 297
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 297
ttcttcatgt cattaagcaa tagg 24

<210> 298
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 298
ttcaatttaa aagtgctagg aaca 24

<210> 299
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 299
cttcaggtgg atgtcacagt cacta 25

<210> 300
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 300
attcaagcaa tgccaagagt atca 24

<210> 301
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 301
ctttcaatag taatgcctta tcat 24

<210> 302
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 302
 tcctgcatgc atttcaccaa c 21

 <210> 303
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 303
 ctgttcacat tttgtaaaac taat 24

 <210> 304
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 304
 atcccaaaga tggcgtagat ga 22

 <210> 305
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 305
 cacgctgctc tttgctttga 20

 <210> 306
 <211> 23
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 306

gatctttgtc agggtcacag tct

23

<210> 307

<211> 9

<212> DNA

<213> Homo sapiens

<400> 307

tacaaagaa

9

<210> 308

<211> 9

<212> DNA

<213> Homo sapiens

<400> 308

tacagagaa

9

<210> 309

<211> 9

<212> DNA

<213> Homo sapiens

<400> 309

tacagagaa

9

<210> 310

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 310

tgtgtccgcc agtagatgg

19

<210> 311

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic

oligonucleotide

<400> 311
 tttttgacca cagaggttta caa 23

<210> 312
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 312
 gaagcggagg cataagcaga 20

<210> 313
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 313
 ggtgcagata atgaaatgtt ttgt 24

<210> 314
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 314
 caccctatg ccaaattgtca aaga 24

<210> 315
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 315
 caaaaacaaa cttataccca gaag 24

<210> 316
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 316
 caaatattgg gcaaacccta at 22

 <210> 317
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 317
 aaggtgccat cacaaaatca t 21

 <210> 318
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 318
 atcgcttgct ttcctaactc ttgt 24

 <210> 319
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 319
 aagtcactat ttggctttgg ttg 23

 <210> 320
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 320
 agaagcccaa aaaggaacaa gata 24

<210> 321
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 321
 ggcccagaaa agtatattac agtt 24

<210> 322
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 322
 tccttaaata agcccatgtc taat 24

<210> 323
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 323
 tctcaaagaa attttacaga tact 24

<210> 324
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 324
 aatggccatg gtaacctact aaca 24

<210> 325
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 325
 caggctatac ccacaaggag att 23

<210> 326
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 326
 tgттаatttt ggcttgatg tt 22

<210> 327
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 327
 tcactccttt gcgcttatca a 21

<210> 328
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 328
 agggctctat gtgccaaacc 20

<210> 329

<211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 329
 aggggcctac taccttacac cag 23

 <210> 330
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 330
 tgtaatccca ggtaagaaga aac 23

 <210> 331
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 331
 taccgggatg aactgtaata ataa 24

 <210> 332
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 332
 ttctggcact cttcctcagg taac 24

 <210> 333
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 333
gtcccatttg aatccattgt gc 22

<210> 334
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 334
ggcccccaag cgattctg 18

<210> 335
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 335
tgtacacca cagtctcaac tatt 24

<210> 336
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 336
acagccacct ttgtaaataa 20

<210> 337
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 337
tttttcgcaa agagttctat 20

<210> 338
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 338
 aaactgaccc tacctccatt tctc 24

 <210> 339
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 339
 actcagccta tgcttttcat ttca 24

 <210> 340
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 340
 cagatattta tttggggaca ttat 24

 <210> 341
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 341
 aaatctttgc ktttatcact cagt 24

 <210> 342
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 342

tagtgctgg ctttgtttta tgac

24

<210> 343

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 343

cggatttggg aaagctgtct ct

22

<210> 344

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 344

agagcacctt gaaggaaaca acaa

24

<210> 345

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 345

tccctcaact gaagtacaga tagt

24

<210> 346

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 346 ataattgcgt tcttccccta ccc	23
<210> 347 <211> 19 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 347 aagccctggc accatcctg	19
<210> 348 <211> 20 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 348 tttgcaaaga aatgctatgt	20
<210> 349 <211> 22 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 349 ctgggtaaca gacttcagta at	22
<210> 350 <211> 24 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: synthetic oligonucleotide	
<400> 350 atgggattgt cttctcaagt ttct	24

<210> 351
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 351
 gatggcaaga tcaacaaatg ga 22

 <210> 352
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 352
 cttgatctgg gactgctgtg atg 23

 <210> 353
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 353
 aggatataat ttttggttca aca 23

 <210> 354
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 354
 ttttcagtgc tcttgatagt agtg 24

 <210> 355
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 355
 gtgccaatga gcgacagg 18

<210> 356
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 356
 ccacgtgtgg ttctatgata cc 22

<210> 357
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 357
 accgtgggag cgtacagtca 20

<210> 358
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 358
 cggcatgcag ctcttttgta 20

<210> 359
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 359

tggccacggt cctagctact gtc 23

<210> 360
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 360
gagttccctt tttaggctgt tatt 24

<210> 361
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 361
tcttattgcc ttcattgatt tcta 24

<210> 362
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 362
tgaaaaataa gatgcgggag tg 22

<210> 363
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 363
gtgaggctgg gggtgtttat g 21

<210> 364
<211> 21

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 364
 gagatgggaa tggaaccacc a 21

 <210> 365
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 365
 ttcgataatg catataagca caa 23

 <210> 366
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 366
 aagggggaaa atcacatctt t 21

 <210> 367
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 367
 ttaaagtgagg catattcagt ctcc 24

 <210> 368
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic

oligonucleotide

<400> 368
ggaagtggag tggggaagg 19

<210> 369
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 369
attcttgcca atatgcattt cact 24

<210> 370
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 370
ttcttttgta ctactatta tactaa 26

<210> 371
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 371
aaacttgcct cttttaaaaa caat 24

<210> 372
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 372
taccacacc tataccttca gtca 24

<210> 373
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 373
 gagtatggca cccttttcta tcta 24

 <210> 374
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 374
 gctatgttcc cctcgctgtc t 21

 <210> 375
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 375
 tgcttgccaa gagcctgac 19

 <210> 376
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 376
 gctggcaagt tctaccactg tg 22

 <210> 377
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 377
 caaacgaaga acatcaggga aata 24

 <210> 378
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 378
 ttcacaatat tgtacaaaaa gtta 24

 <210> 379
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 379
 attaccacca atattcacca taag 24

 <210> 380
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 380
 tcagggttaag gcaaaagtag cac 23

 <210> 381
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 381
 gaaccccaga atgaagaaag gtaa 24

<210> 382
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 382
 tttgtgaaag tactattgga acac 24

<210> 383
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 383
 acgcatggct ttggaacat 19

<210> 384
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 384
 cccgtatgtg gaagggcttt at 22

<210> 385
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

<400> 385
 ctaggttgat ccgggacaaa acta 24

<210> 386

<211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 386
 aacggatgac cagggcaaat ac 22

 <210> 387
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 387
 ctagaaggtc ctggggcaac tg 22

 <210> 388
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 388
 aagccatcat gtaaagtga aag 23

 <210> 389
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 389
 atcccaaaga tggcatagat a 21

 <210> 390
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 390
cacgctgctc ttgctttga 20

<210> 391
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 391
tgagctgccca gggatgaattg 20

<210> 392
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 392
ttgctagcac ctattcttaa tagtgc 26

<210> 393
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 393
ccaggcgagc tgcaaatca gag 23

<210> 394
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 394
cccgatgcga cccagttta 19

<210> 395
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 395
 tggaggggtt tgatgccata 20

 <210> 396
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 396
 gatggatgcc cttcgaatac aga 23

 <210> 397
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 397
 ttcccatTTa gtttgtcaat aatc 24

 <210> 398
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: synthetic
 oligonucleotide

 <400> 398
 aaggggagga ttgacttacc tat 23

 <210> 399
 <211> 21
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
oligonucleotide

<400> 399

ttggcatgga cctcctcttg a

21

<210> 400

<211> 18

<212> DNA

<213> Homo sapiens

<400> 400

caagataatg atgatgag

18

<210> 401

<211> 15

<212> DNA

<213> Homo sapiens

<400> 401

caagatgatg atgag

15

<210> 402

<211> 13

<212> DNA

<213> Homo sapiens

<400> 402

tggtgtaagg tag

13

<210> 403

<211> 13

<212> DNA

<213> Homo sapiens

<400> 403

tggtataagg tag

13

<210> 404

<211> 17

<212> DNA

<213> Homo sapiens

<400> 404

ccccttatat ctccaac

17

<210> 405

<211> 17

<212> DNA
<213> Homo sapiens

<400> 405
ccccttatay ctccaac 17

<210> 406
<211> 15
<212> DNA
<213> Homo sapiens

<400> 406
aaatacgtaa tcgat 15

<210> 407
<211> 15
<212> DNA
<213> Homo sapiens

<400> 407
aaatacataa tcgat 15

<210> 408
<211> 15
<212> DNA
<213> Homo sapiens

<400> 408
aaatacrtaa tcgat 15